

Debbie Beadle

From: Debbie Beadle
Sent: Monday, March 4, 2013 12:57 PM
To: Debbie Beadle
Subject: ECA code revision mark-up
Attachments: PC REC DRAFT 2-6-13 C4S mark-up + links.docx

EXHIBIT NO.

CC4

From: Ramiro Valderrama-Aramayo
Sent: Monday, March 04, 2013 8:56 AM
To: harryshedd@gmail.com; Claradell Shedd
Cc: City Council; Ben Yazici; Kamuron Gurol; rvalderr2001@yahoo.com
Subject: FW: ECA code revision mark-up

Dear Harry Shedd:

Thank you and the CFS Environmental sub group for forwarding your ECA code revision mark up. We appreciate all of the time and effort the sub group has spent actively participating, working and following these ECA issues. We will review and consider the suggestions made. Thank you again for all the work your group invests in making our City an even better place to live in.

Regards,

Ramiro Valderrama
Deputy Mayor, Sammamish

From: Harry Shedd [shedd@hshedd.com]
Sent: Monday, March 04, 2013 6:37 AM
To: City Council
Subject: ECA code revision mark-up

Mr. Mayor and Council members:

The Citizens for Sammamish Environment Sub-group has reviewed the Planning Commission Recommended Draft of the updates to the ECA Code dated February 12, 2013. A mark-up of that document is attached to this email and is hereby submitted to the City Council for consideration.

The members of the Environment Sub-group were involved throughout the Planning Commission (PC) ECA review process. The members reviewed the previous version of the code revisions in the context of the testimony produced during that process, and submitted a similar mark-up prior to PC deliberations. They have revisited the changes in this latest update, resulting in the current mark-up. The attached document contains comments and recommended code changes in areas of particular concern, subject to the limitations placed on public input by the "known topics" constraints. Comments and changes produced by Staff remain identified, and the Sub-group's comments and changes are signified by "C4S". Hyperlinks within the comments bring up relevant Exhibits from the public testimony.

The following is a summary of the major concerns reflected in the CFS changes and comments:

1. The qualifier "At Director's discretion" is used frequently in the code in one manner or another. That is subjective and does not encourage predictability or transparency. The Director should only be able to relax requirements, where appropriate, not impose stricter ones.
2. The code should not allow arbitrary rejection or modification of the conclusions of required reports and studies based on opinion. Expert reports prepared by professionals should be accepted as conclusive unless challenged based upon fraud or the expert's credentials and/or license status.
3. The indiscriminate imposition of restrictions on developed neighborhoods based on stipulated buffer widths has been addressed only partially. Problems remain wherein residents are prevented from using, or subject to unreasonable effort and expense in order to use, their property in ways that are fully within the rights of all other residents, but where no environmental benefit is actually achieved.
4. Buffer delineation should be adopted as an option. It would eliminate the burden of arbitrary one-size-fits-all buffers that can restrict land use where there is no environmental benefit. It allows buffers to be established based upon the actual range of influence, taking into account barriers such as roads and structures, topography, and the extent and quality of the actual habitat present.
5. Wildlife Corridors and Fish and Wildlife Conservation Areas should be applied only to undeveloped land in which other environmental buffers exist, not retroactively imposed on developed neighborhoods. They should not exceed the environmental buffers already required or create any new buffer areas.
6. The Corps of Engineers does not regulate isolated wetlands below 1/10th of an acre. The City of Sammamish should exempt category III and IV isolated wetlands below that size from avoidance sequencing. Nearby jurisdictions, such as Renton, have recently adopted regulations exempting isolated wetlands up to 4,000 sq. ft. with Department of Ecology approval.

In addition to concerns, CFS has the following comment:

The Erosion Hazard Near Sensitive Water Bodies no-disturbance overlay is unique to the city of Sammamish; no other jurisdiction in the state has or needs anything similar, as evidenced by substantial testimony. The PC's draft regulations recognize this and have made an attempt to correct the situation in a manner that will keep lakes and streams safe. It requires the use of new and advanced technologies, low impact development techniques and extensive monitoring during and after development. Current technologies make development in the EHNSWB overlay reliably safe and will allow development that will not negatively impact Lake Sammamish.

Thank you for your consideration.

Citizens for Sammamish Environment Sub-group

RECOMMENDED DRAFT

Chapter 21A.50
ENVIRONMENTALLY CRITICAL AREAS

Sections:

- 21A.50.010 Purpose.
- 21A.50.020 Applicability.
- 21A.50.030 Appeals.
- 21A.50.040 Critical areas rules.
- 21A.50.045 Fees.
- 21A.50.050 Complete exemptions.
- 21A.50.060 Allowances for Existing Urban Development and Other Uses
- 21A.50.070 Exceptions.
- 21A.50.080 *Repealed.*
- 21A.50.090 Critical area maps and inventories.
- 21A.50.100 Disclosure by applicant.
- 21A.50.110 Critical area review.
- 21A.50.120 Critical areas study requirement.
- 21A.50.130 Contents of critical areas study.
- 21A.50.135 Avoiding impacts to critical areas.
- 21A.50.140 Mitigation, maintenance, monitoring and contingency.
- 21A.50.145 Mitigation plan requirements.
- 21A.50.150 Financial guarantees.
- 21A.50.160 Vegetation management plan.
- 21A.50.170 Critical area markers, signs and fencing.
- 21A.50.180 Notice on title.
- 21A.50.190 Critical area tracts and designations on site plans.
- 21A.50.200 *Recodified.*
- 21A.50.210 Building setbacks.
- 21A.50.220 Erosion hazard areas – Development standards and permitted alterations.
- 21A.50.225 Erosion hazards near sensitive water bodies – Special district overlay.
- 21A.50.230 Frequently flooded areas.
- 21A.50.240 *Repealed.*
- 21A.50.250 *Repealed.*
- 21A.50.260 Landslide hazard areas – Development standards and permitted alterations.
- 21A.50.270 Seismic hazard areas – Development standards and permitted alterations.
- 21A.50.280 Critical aquifer recharge areas – Development standards.
- 21A.50.290 Wetlands – Development standards.
- 21A.50.300 Wetlands – Permitted alterations.
- 21A.50.310 Wetlands – Mitigation requirements.
- 21A.50.315 Wetlands – Mitigation banking.

Deleted: Partial exemptions – Critical areas.

1 21A.50.320 Wetlands – Limited exemption.
2 21A.50.322 Wetland management area – Special district overlay.
3 21A.50.325 Fish and wildlife habitat conservation areas – Development standards.
4 21A.50.327 Wildlife habitat corridors.
5 21A.50.330 Streams – Development standards.
6 21A.50.340 Streams – Permitted alterations.
7 21A.50.350 Streams – Mitigation requirements.
8 21A.50.351 Ponds – Development standards.
9 21A.50.352 *Repealed*.
10 21A.50.355 Lake management areas – Special district overlay.
11 21A.50.360 Critical areas mitigation fee – Creation of fund.
12 21A.50.370 Critical areas mitigation fee – Source of funds.
13 21A.50.380 Critical areas mitigation fee – Use of funds.
14 21A.50.390 Critical areas mitigation fee – Investment of funds.
15 21A.50.400 Sunset provisions.

16 **21A.50.010 Purpose.**

17 The purpose of this chapter is to implement the goals and policies of the Washington State Growth
18 Management Act, Chapter 36.70A and 36.70B RCW, the State Environmental Policy Act, Chapter 43.21C
19 RCW, and the City of Sammamish comprehensive plan as amended, that call for protection of the functions
20 and values of the natural environment and the public health and safety by:

- 21 (1) Establishing development standards to protect defined critical areas;
- 22 (2) Protecting members of the public and public resources and facilities from injury, loss of life, property
23 damage or financial loss due to flooding, erosion, landslides, seismic events, soil subsidence or steep slope
24 failures;
- 25 (3) Protecting unique, fragile, and valuable elements of the environment including, but not limited to, wildlife
26 and its habitat;
- 27 (4) Requiring mitigation of unavoidable impacts on environmentally critical areas by regulating alterations in
28 or near critical areas;
- 29 (5) Preventing cumulative adverse environmental impacts on water availability, water quality, groundwater,
30 wetlands, and streams;
- 31 (6) Measuring the quantity and quality of wetland and stream resources and preventing overall net loss of
32 wetland and stream functions and values;
- 33 (7) Protecting the public trust as to navigable waters and aquatic resources;
- 34 (8) Meeting the requirements of the National Flood Insurance Program and maintaining the City as an eligible
35 community for federal flood insurance benefits;

1 (9) Alerting members of the public including, but not limited to, appraisers, owners, potential buyers or
2 lessees to the development limitations of critical areas;

3 (10) Establishing special district overlays with alternative development standards for increasing minimum
4 requirements to address unique site characteristics in areas of increased sensitivity;

5 (11) Providing City officials with sufficient information to protect critical areas; and

6 (12) Providing the public with a clear review and approval process for the development of sites constrained
7 by critical areas. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

8 **21A.50.020 Applicability.**

9 (1) The provisions of this chapter shall apply to all land uses in the City of Sammamish, and all persons within
10 the City shall comply with the requirements of this chapter.

11 (2) The City shall not approve any ~~development proposal~~ or otherwise issue any authorization to alter the
12 condition of any land, water or vegetation or to construct or alter any structure or improvement without first
13 assuring compliance with the requirements of this chapter.

Deleted: permit

14 (3) Approval of a development proposal pursuant to the provisions of this chapter does not discharge the
15 obligation of the applicant to comply with the provisions of this chapter.

16 (4) When any provision of any other chapter of the Sammamish Municipal Code conflicts with this chapter or
17 when the provisions of this chapter are in conflict, that provision that provides more protection to
18 environmentally critical areas shall apply unless specifically provided otherwise in this chapter or unless such
19 provision conflicts with federal or state laws or regulations.

20 (5) The provisions of this chapter shall apply to all forest practices over which the City has jurisdiction
21 pursuant to Chapter 76.09 RCW and WAC Title 222. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

22 **21A.50.030 Appeals.**

23 Any decision to approve, condition or deny a development proposal based on the requirements of this
24 chapter may be appealed according to and as part of the appeal procedure for the permit or approval
25 involved. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

26 **21A.50.040 Critical areas rules.**

27 Applicable departments within the City are authorized to adopt, pursuant to Chapter 2.55 SMC, such
28 administrative rules and regulations as are necessary and appropriate to implement this chapter and to
29 prepare and require the use of such forms as are necessary to its administration. (Ord. O2005-193 § 1; Ord.
30 O99-29 § 1)

31 **21A.50.045 Fees.**

32 (1) Consistent with the City's adopted fee schedule, the City shall establish fees for the application filing,
33 review and other services provided by the City for critical areas review. Basis for these fees shall include, but
34 not be limited to, the cost of engineering and planning review time, cost of inspection time, costs for

1 administration, costs for third-party peer review, and any other special costs attributable to the critical areas
2 review process.

3 (2) Unless otherwise indicated in this title, the applicant shall be responsible for the initiation, preparation,
4 submission, and expense of all required reports, assessments, studies, plans, reconnaissances, or other work
5 prepared in support of or necessary to review the application. (Ord. O2005-193 § 1)

6 **21A.50.050 Complete exemptions.**

7 The following are exempt from the provisions of this chapter and any administrative rules promulgated
8 thereunder:

9 (1) Alterations in response to emergencies that threaten the public health, safety, and welfare or that pose
10 an imminent risk of damage to private property as long as any alteration undertaken pursuant to this
11 subsection is reported to the department immediately. The director shall confirm that an emergency exists
12 and determine what, if any, mitigation shall be required to protect the health, safety, welfare and
13 environment and to repair any resource damage;

14 (2) Public water, electric, and natural gas distribution, public sewer collection, cable communications,
15 telephone utility, and related activities undertaken pursuant to City-approved best management practices, as
16 follows:

17 (a) Normal and routine maintenance or repair of existing utility structures or rights-of-way;

18 (b) Relocation of electric facilities, lines, equipment or appurtenances, not including substations,
19 with an associated voltage of 55,000 volts or less, only when required by a local governmental
20 agency that approves the new location of the facilities;

21 (c) Replacement, operation, repair, modification, installation, or construction in existing developed
22 utility corridors, an improved City street right-of-way or City-authorized private street of all electric
23 facilities, lines, equipment, or appurtenances, not including substations;

24 (d) Relocation of public sewer local collection, public water local distribution, natural gas, cable
25 communication or telephone facilities, lines, pipes, mains, equipment, or appurtenances, only when
26 required by a local governmental agency that approves the new location of the facilities; and

27 (e) Replacement, operation, repair, modification, installation, or construction of public sewer local
28 collection, public water local distribution, natural gas, cable communication or telephone facilities,
29 lines, pipes, mains, equipment, or appurtenances when such facilities are located within an
30 improved public right-of-way or authorized private street;

31 (3) Maintenance, operation, repair, modification, or replacement of publicly improved streets as long as any
32 such alteration does not involve the expansion of streets or related improvements into previously
33 unimproved rights-of-way or portions of rights-of-way;

34 (4) Maintenance, operation, or repair of parks, trails and publicly improved recreation areas as long as any
35 such alteration does not involve the expansion of improvements into previously unimproved areas or new
36 clearing of native vegetation beyond routine pruning and related activities; and

(5) All clearing and grading activities that are exempt from the requirement for a clearing and grading permit as specified in SMC 16.15.050, unless these activities require other permits or authorizations as specified in SMC 21A.50.020. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1) **21A.50.060 Allowances for Existing Urban Development and Other Uses.**

The following developments, activities, and uses are allowed in critical areas and associated buffers and building setbacks as specified in the following subsections, provided such activities are otherwise consistent with this program and other applicable regulations. The Director may apply conditions to an underlying permit or approval to ensure that the activities are consistent with the provisions of this chapter.

(1) Maintenance of Existing Improvements. Existing single detached dwelling unit, other structures, landscaping, and other existing uses that do not meet the requirements of this chapter, which were legally established according to the regulations in place at their time of establishment may be maintained and no critical areas study or review is required.

(2) Modifications of Existing Improvements. Addition, expansion, reconstruction or revision of existing building(s) or other structures is subject to the following:

a) Modification or replacement. Structural modification or replacement of legally established structures that do not meet the building setback or buffer requirements for wetlands, streams, Fish and Wildlife Habitat Conservation Area, wildlife habitat corridor, or landslide hazard areas is allowed if the modification, replacement or related activity does not increase the existing footprint of the structure lying within the critical area, buffer or building setback area, and there is no increased risk to life or property.

b) Expansions. Structural modification of, addition to, or replacement of legally created building(s) and associated impervious surfaces that do not meet the building setback or buffer requirements for wetlands, streams, Fish and Wildlife Habitat Conservation Area, wildlife habitat corridor, or landslide hazard areas are allowed a one-time up to 1,000 square foot increase in the existing total footprint of the building(s) and associated impervious surface areas lying within the buffer or building setback subject to the following:

1. If the existing legally created building(s) and associated impervious surfaces are located within the building setback or buffer required for a landslide hazard area, a critical areas study must be supplied and approved by the City that demonstrates that there will be no increased risk to life or property by the proposed footprint expansion;

2. If the existing legally created building(s) and associated impervious surfaces are located over or within a wetland, stream, Fish and Wildlife Habitat Conservation Area, wildlife habitat corridor, or landslide hazard area, no further expansion within the wetland, stream, Fish and Wildlife Habitat Conservation Area, wildlife habitat corridor, or landslide hazard area is allowed; and

3. If an existing legally created single detached dwelling unit and associated impervious surfaces are located within the building setback or buffer for a stream or wetland;

Deleted: ¶

Commented [EM1]: 2-14c, 5-1, & 5-20

Deleted: Partial exemptions – Critical areas

Commented [C4S-2]: This is still an arbitrary constraint. If a structure is beyond the range of influence on the ECA in question, due to intervening structures, topography, or whatever, there should be no restrictions beyond those (like impervious surface limit) that apply to all residential construction. (Ref. Exhibits 105A, 210, 214, 218, 235, 268)

Commented [C4S-3]: Adding Fish and Wildlife Habitat Conservation Areas and wildlife habitat corridors here is inappropriate: it nullifies the effect of the 1000sf allowance in b) above. At 200ft on either side of a Type F or Np stream, the width of a habitat corridor or conservation area even exceeds that of the widest stream buffer. See discussion Fish and wildlife habitat conservation areas and corridors at the end of this document. These two are not ECAs per se and do not belong in this paragraph. (Ref. Exhibit 268)

Commented [C4S-4]: A single detached dwelling unit is not the only type of structure that should receive this relief. For example, why shouldn't a duplex be expandable, or a single-car garage be expandable to a double-car garage, if these have no effect on the ECA in question? Replace "single detached dwelling unit" with simply "building(s)" as above. (Ref. Exhibits 235, 268)

a. No portion of the modification, addition or replacement may be located closer to the critical area than the nearest extent of the existing single detached dwelling unit, except as provided under subsection "b." below.

Commented [C4S-5]: •Change to "building" here and where applicable below. See previous comment. (Ref. Exhibits 235, 268)

b. When there is an intervening building(s) on a perpendicular line in between the subject critical area(s) and a single detached dwelling unit that is proposed to be modified, added to, or replaced, the modification, addition or replacement may be located closer to the critical area, provided no portion of the modification, addition or replacement is located closer than 50-feet to the critical area.

Commented [C4S-6]: Buildings are not the only man-made features that can constitute de facto barriers to influence on an ECA, so can driveways, solid walls, etc. Science supports this. (Buffer delineation is the solution to this problem.) Regardless, replace this phrase with "structure or other barrier to influence on the stream or wetland". (Ref. Exhibits 210, 214, 235, 268)

c. Modifications, additions, or replacements authorized under subsections "a." and "b." above, shall meet the following criteria:

Commented [C4S-7]: 50-feet is an arbitrary "magic number". If the intervening feature is such that the modification will have no effect on the critical area, there should be no minimum distance specified. Delete this clause. (Ref. Exhibits 235, 268)

i. A critical areas study approved by the City demonstrates a net improvement in hydrologic and habitat values to the subject critical area(s) through restoration of degraded critical areas and/or buffer or through provision of additional vegetated buffer; and

Commented [C4S-8]: If the modification has no effect on the critical area due to an intervening feature, no "net improvement" should be required. (Nor may it be feasible if the critical area is on someone else's property.) This is using arbitrary declarative buffers as a lever to impose an agenda of habitat restoration, and is a policy the city should not impose. (Ref. Exhibits 235, 268)

ii. Mitigation of impacts to disturbed critical areas or buffers is provided in accordance with this chapter.

(3) Revisions to existing legally-established landscaping are allowed subject to the following:

- a) The landscaped area shall not be increased within the critical area or buffer; and,
- b) Landscaping features may be revised or replaced with similar features or features with less impact to the critical area or buffer, such that the remaining functions of the critical area and/or buffer are maintained or improved (e.g. plant material replaced with alternate plant material, hardscape replaced with alternate hardscape, hardscape replaced with plant material, etc.); and,
- c) Revisions authorized under this section shall not require a critical areas study.

Commented [C4S-9]: Here again, any constraint on landscaping located beyond the range of influence on the critical area due to intervening structures or topography constitute unjustified restrictions on the homeowner. Provisions similar to (2) b) 3. b. above should be added. (Buffer delineation will solve this problem.) (Ref. Exhibits 235, 268)

Commented [C4S-10]: Same problem as with a) (see previous comment).

(4) Conservation, Preservation, Restoration and/or Enhancement is allowed within critical areas or buffers subject to the following:

- a) Conservation and preservation of soil, water, vegetation, and other fish and wildlife habitat is allowed where it does not include alteration of the location, size, dimensions or functions of an existing critical area or buffer.
- b) Restoration and enhancement of critical areas or buffers is allowed provided that actions do not alter the location, dimensions or size of the critical area or buffer; that actions improve and do not reduce the existing quality or functions of the critical areas or buffers; and that actions are implemented according to a restoration or enhancement plan that has been approved by the City of Sammamish.

(5) Select Vegetation Removal Activities.

Commented [EM11]: Item 5-2

1 a) Removal of non-native or invasive Washington State and/or King County listed noxious weeds in
2 an area of up to 2,500 square feet within a critical area or buffer is allowed with no permit
3 requirement if the following provisions are met:

- 4 i. The plants are removed using hand labor and/or light equipment;
5 ii. Soil disturbance is minimized and no filling or modification of soil contours occurs;
6 iii. Water quality is protected and no modification of hydrology patterns within the critical area
7 or buffer is permitted;
8 iv. Native plants are protected from removal or damage;
9 v. Appropriate erosion-control measures are used;
10 vi. The area is replanted with a like kind and density of native vegetation following non-native
11 plant removal. For example, if dense non-native blackberry is removed, at a minimum, dense
12 native shrubs must be replanted following blackberry removal, though native trees and
13 groundcover could also be included and are encouraged if desired; and
14 vii. Removal of non-native or invasive plants authorized under this subsection shall not require a
15 critical areas study.

16 b) For removal of non-native vegetation in an area greater than 2,500 square feet, a clearing and
17 grading permit is required and must be accompanied by a native plant restoration plan in accordance
18 with applicable provisions of this chapter. A critical areas study may be required by the director.

19
20 (6) Reconstruction, replacement, or expansion of the exterior footprint of an existing, legally established
21 structure not meeting current regulations is allowed; provided, that the addition or reconstruction
22 does not increase the noncompliance to current regulations. A critical areas study may be required by
23 the director.

24 a) Replacement may be allowed in a different location not meeting current regulations if a
25 determination is made by the City that the new location results in no greater impact to environmental
26 critical area functions and values than replacement in the existing footprint.

27 b) Existing structures that were legally established but which are not meeting current
28 regulations may be maintained, reconstructed, or repaired; provided, that the
29 maintenance/reconstruction/repair does not increase the extent of noncompliance with current
30 regulations by encroaching upon or extending into the environmental critical areas or other area
31 where new construction or use would not be allowed.

32 c) If a structure not meeting current regulations is damaged by fire, explosion, or other casualty
33 and/or natural disaster or is otherwise demolished, it may be reconstructed to match the footprint

Commented [C4S-12]: Another instance of an unjustified constraint on the homeowner if the vegetation removal is beyond the range of influence on the critical area. Buffer delineation will provide a solution to this problem. (Ref. Exhibits 235, 268)

Commented [C4S-13]: If the modification does not have a negative effect on the critical area, that is sufficient. Otherwise this is using arbitrary declarative buffers as a lever to impose an agenda of habitat restoration, and is a policy the city should not impose. (Ref. Exhibit 233)

Deleted: less

that existed immediately prior to the time the damage occurred or in accordance with subsection (6)a) of this section; provided, that all of the following criteria are met:

(i) The owner(s) submit a complete application within 24 months of the date the damage occurred; and

(ii) All permits are issued within two years of initial submittal of the complete application, and the restoration is completed within two years of permit issuance. This period may be extended for one additional year by the director if the applicant has submitted the applications necessary to establish the use or activity and has provided written justification for the extension.

d) A structure not meeting current regulations that is moved outside the existing footprint must be brought into conformance with this chapter, except as allowed by subsection (6)a) of this section.

(7) A permit or approval sought as part of a development proposal where previous critical areas review has been completed is exempt from the provisions of this chapter and any administrative rules promulgated thereunder, except for the notice on title provisions, SMC 21A.50.180 and 21A.50.190, if:

(a) The City previously reviewed all critical areas on the site;

(b) There is no material change in the development proposal since the prior review that would affect a critical area;

(c) There is no new information available that is important to any critical area review of the site or particular critical area;

(d) No more than five years have lapsed since the issuance of the permit or approval under which the prior review was conducted; provided, that the director may allow a longer time period if new review would be unlikely to provide new information about the critical area; and

(e) The prior permit or approval, including any conditions, has been complied with. (Ord. O2009-264 § 1 (Att. A); Ord. O2005-193 § 1; Ord. O99-29 § 1) 21A.50.070 Exceptions.

(1) Public Agency and Utility Exception. If the application of this chapter would prohibit an activity or a development proposal by a public agency or utility, the agency or utility may apply for an exception pursuant to this section:

(a) The public agency or utility shall apply to the department and shall make available to the department other related project documents such as permit applications to other agencies, special studies and SEPA documents.

(b) The director may approve alterations to critical areas, buffers and critical area setbacks by an agency or utility not otherwise allowed by this chapter when the following criteria are met:

Deleted: (1) The following developments, activities and uses are exempt from the review process of this chapter, except for the notice on title provisions, SMC 21A.50.180 and 21A.50.190, and the frequently flooded areas provisions, SMC 21A.50.230, and provided such exempt activities are otherwise consistent with the purpose of this chapter and other applicable regulations. The director may apply conditions to an underlying permit or approval to ensure that the activities are consistent with the provisions of this chapter.¶

(a) Structural modification of, addition to or replacement of existing legally created structures, except single detached residences in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams, ponds or landslide hazard areas if the modification, addition, replacement or related activity does not increase the existing footprint of the structure lying within the above-described building setback area, critical area or buffer.¶

(b) Structural modification of, addition to or replacement of legally created single detached residences and improvements constructed on existing associated legally created impervious surfaces in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams, lakes, ponds or landslide hazard areas if the modification, addition, replacement or related activity does not increase the existing total footprint of the residence and associated impervious surface lying within the above-described buffer or building setback area by more than 1,000 square feet over that existing before November 27, 1990, and no portion of the modification, addition or replacement is located closer to the critical area or, if the existing residence is in the critical area, extends farther into the critical area.¶

(c) Maintenance or repair of structures that do not meet the development standards of this chapter for landslide or seismic hazard areas if the maintenance or repair does not increase the footprint of the structure and there is no increased risk to life or property as a result of the proposed maintenance or repair.¶

(d) Select Vegetation Removal Activities. The removal of the following invasive vegetation is allowed with hand labor and/or light equipment; provided, that the appropriate erosion-control measures are used and the area is replanted with native vegetation according to a restoration or enhancement plan that has been approved by the City of Sammamish: ¶

(i) Noxious weeds as identified by Washington State or King County noxious weed lists; ¶

(ii) Himalayan blackberry (*Rubus discolor*, *R. procerus*); ¶

(iii) Evergreen blackberry (*R. laciniatus*); ¶

(iv) Ivy (*Hedera* spp.); and ¶

(v) Holly (*Ilex* spp.), laurel, Japanese knotweed (*Polygonum cuspidatum*), or any other species on the King County noxious weed list. ¶

Removal of any native vegetation or woody debris from a critical area is prohibited unless the action is part of an approved alteration. ¶

(e) Conservation, Preservation, Restoration and/or Enhancement. ¶

(i) Conservation and preservation of soil, water, vegetation, fish and other wildlife that does not entail alteration of the location, size, dimensions or functions of an existing critical area or buffer; and ¶

(ii) Restoration and enhancement of critical areas or buffers; provided, that actions do not alter the location, dimensions or size of the critical area or buffer; that actions improve and do not reduce the existing quality or functions of the critical areas or buffers; and that actions are implemented according to a restoration or enhancement plan that has been approved by the City of Sammamish. ¶

(2) Existing and ongoing agriculture and grazing of livestock is exempt from the provisions of this chapter and any administrative rules promulgated thereunder, except for the livestock restr...

Deleted: 3

Deleted: ¶

(i) There is no other reasonable alternative to the activity or proposed development with less impact on the critical area; and

(ii) The activity or development proposal is designed to avoid, minimize, and mitigate the impact on environmentally critical areas consistent with the avoidance and mitigation sequencing requirements in this chapter; and, if applicable:

(iii) The proposed development or activity is of a linear nature and is on an existing corridor or connects to public lands, trails, utility corridors, rights-of-way or other public infrastructure, or is required for functional reasons such as gravity flow.

(c) The department shall process exceptions, provide public notice, provide opportunity for the public to request a public hearing, and provide an appeal process consistent with the provisions of Chapter 20.05 SMC.

(2) Reasonable Use Exception. If the application of this chapter would deny all reasonable use of the property, the applicant may apply for an exception pursuant to this subsection:

(a) The director ~~shall~~ approve alterations to critical areas, critical area buffers and setbacks to allow a reasonable use not otherwise allowed by this chapter when the following criteria are met:

(i) The application of this chapter would deny all reasonable use of the property;

(ii) There is no other reasonable use with less impact on the critical area;

(iii) The proposed development does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest; and

(iv) Any alterations permitted to the critical area or buffer shall be the minimum necessary to allow for reasonable use of the property; and any authorized alteration of a critical area under this subsection shall be subject to conditions established by the department including, but not limited to, mitigation under an approved mitigation plan. (Ord. 02005-193 § 1; Ord. 02005-172 § 4; Ord. 099-29 § 1)

21A.50.080 Modification or waiver of sensitive area requirements – Urban lots.

Repealed by Ord. 02005-193.(Ord. 099-29 § 1)

21A.50.090 Critical area maps and inventories.

~~Not all of the critical areas in the City of Sammamish are fully mapped. Field verification and, if appropriate, evaluation and mapping by a qualified professional of the location of critical areas will be required. The distribution of many environmentally critical areas in the City of Sammamish is displayed in the City's critical areas map folio, as amended. Additionally, the following maps are referenced and/or maintained by the City:~~

~~(a) Many of the wetlands located within the City's boundaries are inventoried in the King County wetlands inventory notebooks.~~

Citizens for Sammamish mark-up

Commented [C4S-14]: Limit the discretionary influence of the Director in the interest of predictability. (Ref. Exhibit 268)

Deleted: may

Commented [EM15]: Item 5-4

Deleted: Additionally, m

(b) Flood hazard areas are mapped by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for King County."

Deleted: Many f

(c) The wetland management, erosion hazard near sensitive water bodies, critical aquifer recharge area, and lake management special overlay districts are designated on maps maintained by the City of Sammamish Department of Community Development.

Deleted: d

Deleted: c

Deleted: d

All maps are deemed advisory with the exception of the Critical Aquifer Recharge Area, Flood Insurance Study for King County, Wetland Management Area and Erosion Hazard Near Sensitive Water Bodies overlay maps.

If there is a conflict among the advisory maps, inventory and/or site-specific features, the Department of Community Development shall verify the actual presence or absence of the features defined in this title as environmental critical areas. The determination may be challenged by the property owner pursuant to SMC

Deleted: d

Deleted: c

Deleted: d

Deleted: (Ord. 02005-193 § 1; Ord. 099-29 § 1)

21A.05.

21A.50.100 Disclosure by applicant.

(1) The applicant shall disclose to the City the presence of critical areas on the development proposal site and any mapped or identifiable critical areas within the distance equal to the largest potential required buffer applicable to the development proposal area on the applicant's property.

(2) If the development proposal site contains or is within a critical area or buffer, the applicant shall submit an affidavit that declares whether the applicant has knowledge of any illegal alteration to any or all critical areas or their buffers on the development proposal site and whether the applicant previously has been found in violation of this chapter, pursuant to SMC Title 23. If the applicant previously has been found in violation, the applicant shall declare whether such violation has been corrected to the satisfaction of the City. (Ord. 02005-193 § 1; Ord. 099-29 § 1)

21A.50.110 Critical area review.

(1) The City shall perform a critical area review prior to issuing any approval for a development proposal permit application or other request for permission to proceed with an alteration on a site that includes a critical area or is within an identified critical area buffer or building setback area.

(2) As part of the critical area review, the City shall:

(a) Confirm whether critical areas or buffers have been mapped or identified within the distance equal to the largest potential required buffer applicable to the development proposal area;

(b) Confirm the nature and type of the critical area;

(c) Determine whether a critical areas study is required;

(d) Evaluate the critical areas study and independent peer review, if required; and

(e) Determine whether the development proposal is consistent with this chapter;

(f) Determine whether any proposed alteration to the critical area is necessary; and

Commented [C45-16]: Critical area studies are by their very nature somewhat subjective. Staff should never be able to override reports prepared by a "qualified professional". Questions by staff may need to be directed back to the qualified professional for their response, but in any difference of opinion, the qualified professional shall prevail unless fraud or malfeasance can be shown.

Commented [C45-17]: Item 4-10 specifically referred to geotechnical reports, this provision has been expanded to include all reports. Was this expansion at the direction of the PC? If not, limit peer review to geotechnical reports. (Ref. Exhibits 235, 268)

Commented [CdS18]: Item 4-10

Deleted: ;

Commented [C45-19]: Necessary to what, the development? Clarify. (Ref. Exhibit 268)

Citizens for Sammamish mark-up

(g) Determine if the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the public health, safety, and welfare, consistent with the goals, purposes, objectives, and requirements of this chapter. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

21A.50.120 Critical areas study requirement.

(1) An applicant for a development proposal where alteration of an environmentally critical area or modification or reduction of a buffer associated with an environmentally critical area is proposed shall submit a critical areas study in accordance with SMC 21A.50.130 to adequately evaluate the proposal and probable impacts.

(2) The director shall waive or modify the requirement for a critical areas study if the applicant shows, that:

(a) There will be no alteration of the critical area or buffer;

(b) The development proposal will not have an impact on the critical area in a manner contrary to the goals, purposes, objectives, and requirements of this chapter; and

(c) The minimum standards required by this chapter are met; or

(d) Critical areas are located off-site and access to applicable off-site property is restricted.

(3) If the development proposal will affect only a part of the development proposal site, the department may limit the scope of the required critical areas study to include only that area that is affected by the development proposal.

(5) A development proposal may be allowed to utilize past studies from neighboring properties, if confirmed that the study findings remain accurate and applicable to proposed development. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

21A.50.130 Contents of critical areas study.

(1) The critical areas study shall be in the form of a written report prepared by a qualified professional using guidance based on best available science per RCW 36.70A and shall contain the following, as determined to be applicable by the director:

(a) The applicant shall disclose to the City the presence of critical areas on the development proposal site and any mapped or identifiable critical areas within the distance equal to the largest potential required buffer applicable to the development proposal area on the applicant's property;

(b) Assessment of the impacts or risks to an environmental critical area or buffer;

(i) Related to the development proposal and associated alterations to the subject property;

and

(ii) Affecting other properties and environmental critical areas or buffers.

(c) A description of efforts made to apply mitigation sequencing pursuant to SMC 21A.50.135 to avoid, minimize and mitigate impacts to environmentally critical areas;

Citizens for Sammamish mark-up

Deleted: landslide hazard area, wetland, stream, or fish and wildlife habitat conservation area

Deleted: at a level determined by the director

Deleted: A critical areas study shall also be required for a development proposal located in erosion and seismic hazard areas, critical aquifer recharge areas, and frequently flooded areas, consistent with the requirements of this chapter, as determined by the director

Commented [C45-21]: Limit the discretionary influence of the Director in the interest of predictability. (Ref. Exhibit 268)

Deleted: may

Deleted: to the director's satisfaction

Deleted: (4) If necessary to ensure compliance with this chapter, the director may require additional information from the applicant, separate from the critical areas study.

Deleted: f

Commented [Cd523]: Item 5-6

Deleted: Identification and characterization of all critical areas and buffers within the distance equal to the largest potential required buffer that can be reasonably ascertained from the subject property

Deleted: of any alteration proposed for

Deleted: ,

Deleted: assessment of the impacts of any alteration on the development proposal,

Deleted: other properties and the environment,

Deleted: and/or assessment of the impacts to the development proposal resulting from development near the critical area or buffer;

(d) Studies that propose adequate mitigation, maintenance, monitoring, and contingency plans and bonding measures as necessary to offset impacts to the critical area from the development proposal;

(e) A scale map of the development proposal site;

(f) ~~Photographic records of the site before any alteration;~~

(g) Detailed studies, as required by this chapter, for individual critical areas;

(h) Assessment of potential impacts that may occur downstream or downhill from the development site, such as sedimentation or erosion, where applicable;

(i) Assessment of potential impacts to wetland management areas, lake management areas, and other areas designated for special protection, where applicable; and

(j) Consideration of the protection recommendations of the East Lake Sammamish Basin and Nonpoint Action Plan (1994), the Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan – WRIA 8 Steering Committee, and adopted sub-basin plans.

(2) A critical areas study may be combined with any studies required by other laws and regulations.

~~(3) Acceptance of professional expert reports will be deemed conclusive unless challenged based upon fraud or questionable credentials and/or license status.~~

21A.50.135 Avoiding impacts to critical areas.

(1) ~~Except as otherwise provided in SMC 21A.50.060,~~ an applicant for a development proposal, activity, or alteration shall document the consideration of and subsequently shall implement the following sequential measures, which appear in order of preference, to avoid, minimize, and mitigate impacts to environmentally critical areas and associated buffers:

(a) Avoiding the impact or hazard by not taking a certain action, or redesigning the proposal to eliminate the impact. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. However, avoidance shall not be construed to mean mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is an allowed, permitted, conditional, or special use in the SMC. In determining the extent to which the proposal should be redesigned to avoid the impact, the department may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal and identified modifications to the proposal.

The department may also consider the extent to which the avoidance of one type or location of an environmentally critical area could require or lead to impacts to other types or locations of nearby or adjacent environmentally critical areas. The department should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the relevant environmentally critical areas and based on the recommendations of a critical areas study. If impacts cannot be

Commented [EM24]: Item 5-6

Deleted: both

Deleted: f

Deleted: or as otherwise deemed necessary for critical areas protection by the director

Deleted: g

Deleted: h

Deleted: i

Commented [C4S26]: A professional who is licensed by a WA State licensing board meets the highest standards set by the state. A qualified professional meets the standards set by their profession. (Ref. Exhibit 268)

Deleted: (3) If the development proposal will affect only a part of the development proposal site, the director may limit the scope of the required critical areas study to include only that part of the site that may be affected by the development. (Ord. 02005-193 § 1; Ord. 099-29 § 1)

Deleted: A

avoided through redesign, or because of site conditions or project requirements, the applicant shall then proceed with the sequence of steps in subsection (1)(b) through (g) of this section.

(b) Minimizing the impact or hazard by limiting the degree or magnitude of the action or impact with appropriate technology or by changing the timing of the action.

(c) Restoring the impacted critical areas by repairing, rehabilitating or restoring the affected critical area or its buffer.

(d) Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through plantings, engineering or other methods.

(e) Reducing or eliminating the impact or hazard over time by preservation or maintenance operations during the life of the development proposal, activity or alteration.

(f) Compensating for the adverse impact by enhancing critical areas and their buffers or creating substitute critical areas and their buffers as required in the SMC.

(g) Monitoring the impact, hazard or success of required mitigation and taking remedial action based upon findings over time.

(2) In addition to the above steps, the specific development standards, permitted alteration requirements, and mitigation requirements of this chapter and elsewhere in the SMC apply.

(3) The department shall document the decision-making process used under this section as a part of the critical areas review conducted pursuant to SMC 21A.50.110. (Ord. O2005-193 § 1)

21A.50.140 Mitigation, maintenance, monitoring and contingency.

(1) When mitigation is required by this chapter to compensate for adverse impacts, unless otherwise provided, mitigation, maintenance, monitoring measures and contingency plans shall be in place to protect critical areas and buffers from alterations occurring on the development proposal site.

(2) Where monitoring reveals a significant deviation from predicted impacts or a failure of mitigation or maintenance measures, the applicant shall be responsible for appropriate corrective action which, when approved, shall be subject to further monitoring.

(3) Mitigation shall be in-kind and on-site where feasible and sufficient to maintain critical area and buffer functions, and where applicable to prevent risk from a hazard posed by a critical area.

(4) The city may approve off-site mitigation if an applicant demonstrates that:

(a) It is not feasible to mitigate on the development proposal site; and

(b) The off-site mitigation will achieve equivalent or greater hydrological, water quality and wetland or aquatic area habitat functions; (5) When off-site mitigation is authorized, the city shall give priority to locations in the following order of preference:

Commented [EM27]: Item 2-8 & 3-3

Deleted: 1

1 (a) Within the same drainage subbasin;

Deleted: and

2 (b) Within the city limits;

3 (c) Within the boundaries of an approved fee-in-lieu mitigation program.

4 (5) Mitigation shall not be implemented until after the City of Sammamish approves the applicable critical
5 areas study, mitigation plan and any required permits. Following City approval, mitigation shall be
6 implemented in accordance with the provisions of the approved critical areas study and mitigation plan.
7 (Ord. O2005-193 § 1; Ord. O99-29 § 1)

Deleted: 4

8 **21A.50.145 Mitigation plan requirements.**

9 When mitigation is required, the applicant shall submit, for approval by the City of Sammamish, a mitigation
10 plan as part of, or in addition to, the critical areas study. The mitigation plan shall include, or be accompanied
11 by a report with the following information:

Deleted: ,

Deleted: ,

Deleted: as determined to be applicable by the director

12 (1) Existing Conditions and Proposed Impacts. A description of existing critical area(s) and/or buffer(s)
13 conditions, functions, and values and a description of the anticipated impacts;

14 (2) Proposed Mitigation. A description of proposed mitigating actions and mitigation site selection criteria;

15 (3) Environmental Goals and Objectives. A description of the goals and objectives of proposed mitigation. The
16 goals and objectives shall be related to the functions and values of the impacted critical area(s) and/or
17 buffer(s);

18 (4) Best Available Science. A review of the best available science supporting proposed mitigation, a
19 description of the plan/report author's experience to date in restoring or creating the type of critical area
20 proposed, and an analysis of the likelihood of success of the mitigation project;

21 (5) Performance Standards. A description of specific measurable criteria for evaluating whether or not the
22 goals and objectives of the mitigation plan have been successfully attained and whether or not the
23 requirements of this chapter have been met;

24 (6) Detailed Construction Plans. Detailed site diagrams, cross-sectional drawings, topographic elevations at
25 one- or two-foot contours, slope percentage, final grade elevations, and any other drawings appropriate to
26 show construction techniques or anticipated final outcome. In addition, plans should include specifications
27 and descriptions of:

28 (a) Proposed construction sequence, timing, and duration;

29 (b) Grading and excavation details;

30 (c) Erosion and sediment control features;

31 (d) A planting plan specifying plant species, quantities, locations, size, spacing, and density; and

32 (e) Measures to protect and maintain plants until established;

1 (7) Monitoring Program. Mitigation plans shall include a program for monitoring construction of the
2 compensation project, and for assessing a completed project. A protocol shall be included that outlines the
3 schedule for site monitoring and how the monitoring data will be evaluated to determine if the performance
4 standards are being met. A monitoring report shall be submitted as needed to document milestones,
5 successes, problems, and contingency actions of the compensation project. The compensation project shall
6 be monitored for a period necessary to establish that performance standards have been met. The monitoring
7 period shall be five years; provided, that the director may approve a greater period when needed to ensure
8 mitigation success or a lesser period for minor mitigation;

Deleted: and

9 (8) Contingency Plan. The mitigation plan shall include identification of potential courses of action, and any
10 corrective measures to be taken if monitoring or evaluation indicates project performance standards are not
11 being met (Ord. O2005-193 § 1; Ord. O2005-172 § 4); and

Deleted: .

12 (9) Fee in lieu program. If fee-in lieu mitigation is proposed, a critical areas study shall be supplied that
13 demonstrates how proposed impacts and mitigation meet the requirements of SMC 21A.50.140 and
14 21A.50.310 or 21A.50.350, whichever is applicable, and also the specific requirements of the fee-in-lieu
15 mitigation program to be utilized.

Commented [EM29]: Item 2-8 & 3-3

16 **21A.50.150 Financial guarantees.**

17 Financial guarantees shall be required consistent with the provisions of SMC Title 27A. (Ord. O2005-193 § 1;
18 Ord. O99-29 § 1)

19 **21A.50.160 Vegetation management plan.**

20 (1) For all development proposals where preservation of existing vegetation is required by this chapter, a
21 vegetation management plan shall be submitted and approved prior to issuance of the permit or other
22 request for permission to proceed with an alteration.

23 (2) The vegetation management plan shall identify the proposed clearing limits for the project and any areas
24 where vegetation in a critical area or its buffer is proposed to be disturbed.

25 (3) Where clearing includes cutting any merchantable stand of timber, as defined in WAC 222-16-010(28), the
26 vegetation management plan shall include a description of proposed logging practices that demonstrates
27 how all critical areas will be protected in accordance with the provisions of this chapter.

28 (4) Clearing limits as shown on the plan shall be marked in the field in a prominent and durable manner.
29 Proposed methods of field marking shall be reviewed and approved by the City prior to any site alteration.
30 Field marking shall remain in place until the certificate of occupancy or final project approval is granted.

31 (5) The vegetation management plan may be incorporated into a temporary erosion and sediment control
32 plan or landscaping plan where either of these plans is required by other laws or regulations.

33 (6) Submittal requirements for vegetation management plans shall be set forth by the department. (Ord.
34 O2005-193 § 1; Ord. O99-29 § 1)

35 **21A.50.170 Critical area markers, signs and fencing.**

1 (1) Markers. Permanent survey stakes delineating the boundary between adjoining property and critical area
2 tracts shall be set, using markers capable of being magnetically located and as established by current survey
3 standards.

4 (2) Signs. ~~Development proposals approved by the city shall require that the boundary between a critical~~
5 ~~area buffer and contiguous land shall be identified with permanent signs. Permanent signs shall be a City-~~
6 ~~approved type designed for high durability. Signs must be posted at an interval of one per lot or every 50~~
7 ~~feet, whichever is less, and must be maintained by the property owner or homeowners' association in~~
8 ~~perpetuity. The wording, number and placement of the signs may be modified by the director based on~~
9 ~~specific site conditions.~~

10 (3) Fencing. ~~Permanent~~ fencing shall be required at the outer edge of the critical area ~~buffer under the~~
11 ~~following circumstances:~~

12 (a) ~~Development proposals for:~~

13 (i) ~~Plats;~~

14 (ii) ~~Short plats;~~

15 (iii) ~~Parks;~~

16 (iv) ~~Other development proposals, including but not limited to multifamily, mixed use, and~~
17 ~~commercial development where such fencing is necessary to protect the functions of the~~
18 ~~critical area.~~

19 (b) ~~Buffer reduction is employed as part of a development proposal;~~

20 (c) ~~Buffer averaging is employed as part of a development proposal; and~~

21 (d) ~~At the director's discretion to protect the values and functions of a critical area.~~

22 Fencing installed in accordance with this section shall be designed to not interfere with fish and wildlife
23 migration and shall be constructed in a manner that minimizes critical areas impacts. (Ord. O2005-193 § 1;
24 Ord. O99-29 § 1)

25 **21A.50.180 Notice on title.**

26 (1) The owner of any property containing critical areas or buffers on which a development proposal is
27 submitted or any property on which mitigation is established as a result of development, except a public
28 right-of-way or the site of a permanent public facility, shall file a notice approved by the City with the records
29 and elections division of King County. The required contents and form of the notice shall be determined by
30 the director. The notice shall inform the public of the presence of critical areas, buffers or mitigation sites on
31 the property, of the application of this chapter to the property and that limitations on actions in or affecting
32 such critical areas or buffers may exist. The notice shall run with the land.

Deleted: T

Deleted: tract

Deleted: shall

Deleted: as

Deleted: at

Deleted: specified by

Commented [CdS31]: Item 5-7

Commented [C4S-32]: This is particularly important when it comes to livestock and pets. Lake Sammamish is on the Department of Ecology's 303(d) list, as a Category 5 water body for ammonia N, dissolved oxygen, and fecal coliform. The City needs to identify where livestock are located to better monitor this problem.

Deleted: The director may require fencing to protect the functions of a critical area. If found to be necessary, permanent

Deleted: or

Commented [CdS33]: Item 5-7

Deleted: .

Commented [C4S-34]: This is an example of a problem with the ongoing ambiguity regarding what does and does not constitute "development". The new definition of development, 21A.15.XXX, includes landscaping, and 16.15.050 seems to require a development proposal for anything beyond mowing, pruning, and applying groundcover (ref. discussion of reb-1 below). Does this mean merely changing some plantings will trigger a notice on title? That is not reasonable. Limitations need to be specified for what triggers the requirement to file a notice on title. This is best accomplished by better defining "development". (Ref. Exhibits 105A, 214, 235, 268)

(2) The applicant shall submit proof that the notice has been filed for public record before the City shall approve any development proposal for the property or, in the case of subdivisions, short subdivisions and binding site plans, at or before recording. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

21A.50.190 Critical area tracts and designations on site plans.

(1) Critical area tracts shall be used to delineate and protect those critical areas and buffers listed below in development proposals for subdivisions, short subdivisions, or binding site plans and shall be recorded on all documents of title of record for all affected lots:

(a) All landslide hazard areas and buffers that are one acre or greater in size;

(b) All wetlands and buffers;

(c) All streams and buffers; and

(d) All fish and wildlife habitat conservation areas and buffers.

(2) Any required critical area tract shall be held in an undivided interest by each owner of a building lot within the development with this ownership interest passing with the ownership of the lot or shall be held by an incorporated homeowners' association or other legal entity which assures the ownership, maintenance, and protection of the tract, or dedicated to the City of Sammamish, at the City's discretion.

(3) Site plans submitted as part of development proposals for building permits, master plan developments, and clearing and grading permits shall include and delineate all flood hazard areas (if they have been mapped by FEMA or if a critical areas study is required), landslide hazard areas, streams and wetlands, buffers, and building setbacks. If only a part of the development site has been mapped pursuant to SMC 21A.50.130(3), the part of the site that has not been mapped shall be clearly identified and labeled on the site plans. The site plans shall be attached to the notice on title required by SMC 21A.50.180. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

21A.50.200 Alteration.

Recodified to SMC 21A.15.056 by Ord. O2005-172. (Ord. O99-29 § 1)

21A.50.210 Building setbacks.

Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the edges of a critical area buffer. The following may be allowed in the building setback area:

(1) Landscaping;

(2) Uncovered decks;

(3) Building overhangs if such overhangs do not extend more than 18 inches into the setback area;

(4) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to special drainage provisions adopted for the various critical areas; and

(5) Trails. (Ord. O2009-264 § 1 (Att. A); Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

Citizens for Sammamish mark-up

Deleted: or King County

Commented [C4S-35]: This regulation, if enforced, says that a resident cannot so much as build a small storage shed within 165 feet of a watercourse that meets the broad definition of a Type F stream. That is regardless of how many houses, driveways, etc. are between that location and the stream. This is an arbitrary and unjustified restriction of the rights of the property owner. Allowance should be made for intervening features and topography. (ref. comments on 21A.50.060 (2) b).) Note that providing the option of buffer delineation would solve this problem. (Ref. Exhibits 105A, 214, 235, 268)

1 **21A.50.220 Erosion hazard areas – Development standards and permitted alterations.**

2 (1) Land clearing, grading, filling, and foundation work in an erosion hazard area is allowed only from May 1st
3 to September 30th, except that:

4 (a) Construction outside of this seasonal development limitation may be authorized if the director
5 determines that the hazard area will not be adversely impacted by the proposed construction work
6 or the applicant demonstrates that erosion hazards will be fully mitigated ~~through a temporary erosion~~
7 and sediment control management plan that includes:

8 (i) The minimum requirements from the adopted Surface Water Design Manual and Title 13
9 Surface Water Management:

- 10 (A) Provisions to store site construction runoff and treat runoff sufficiently to
11 meet water quality standards prior to discharge;
- 12 (B) Daily and post-storm inspections of temporary erosion and sediment control
13 best management practices;
- 14 (C) Establishment of a manager, who is a Certified Erosion and
15 Sediment Control Lead (CESCL) in the State of Washington, and will be
16 available on-call to respond to temporary erosion and sediment control non-
17 compliance;
- 18 (D) A water-quality monitoring plan for site discharges, where the applicant is
19 responsible for measuring turbidity of stormwater released from the site and
20 maintaining records of monitoring data that shall be available upon request
21 by the City or Ecology. Monitoring protocols should conform to the
22 monitoring requirements of the construction stormwater general permit;
- 23 (E) A Contingency Plan incorporated into the temporary erosion and sediment
24 control plan that identifies corrective actions and BMPs that will be
25 implemented if monitoring shows discharge water quality exceeds water
26 quality standards, and that specifies materials to be stockpiled on site for use
27 in an erosion and sediment control response;
- 28 (F) A Seasonal Suspension Plan for suspending work until the end of the rainy
29 season if temporary erosion and sediment control measures are found to be
30 inadequate;

31 (ii) Pre-design site inspection by a licensed engineer or geologist to identify erosion
32 hazard areas, special overlay district areas, and resources downstream of the site that
33 are to be protected;

34 (iii) Construction stormwater systems and temporary erosion and sediment control
35 best management practices are to be sized for a minimum of a 10-year storm interval;

36 (iv) The owner must provide a financial guarantee in accordance with SMC
37 27A.15 specifically to cover all costs of implementing the approved temporary erosion
38 and sediment control plan, monitoring site discharges, permanently stabilizing the site,
39 and restoring any off-site impacts, including materials, labor, and City costs, to be used
40 if the development is stalled or not completed;

Deleted: .

Commented [C4S-36]: Clarification.

Deleted: no-disturbance

Deleted: .

(v) Preparation and implementation of site grading, stabilization, and restoration plans by a licensed engineer, with certification by a geotechnical engineer that these plans are sufficient to prevent erosion and sedimentation of susceptible soils; and

(vi) Preparation of a vegetation management plan by a qualified professional forest establishment of permanent vegetation on the site following completion of clearing and grading work.

(b) In addition to the requirements of 21A.50.220(1)(a), the director may require, with justifiable cause, additional studies of the site hydrology, soils and stormwater retention, and may also require grading, structural improvements, erosion control measures, restoration plans, and/or an indemnification/release agreement.

(c) Timber harvest may be allowed pursuant to an approved forest practice permit issued by the Washington Department of Natural Resources.

(d) Construction activity associated with subdivisions, short subdivisions, and similar projects that drain to Lake Sammamish during the wet season shall provide water quality monitoring reports to the city consistent with SMC 21A.50.225(5)(g), and shall include monitoring of water temperature.

(e) The director may halt wet season construction as necessary to protect the hazard area and/or to prevent downstream impacts.

(2) All development proposals on sites containing erosion hazard areas shall include a temporary erosion and sediment control plan as specified in section (1)(a) above consistent with this section and other laws and regulations prior to receiving approval. Specific requirements for such plans shall be set forth in the adopted surface water design manual and Title 13 Surface Water Management, or as otherwise specified by the department.

(3) All subdivisions, short subdivisions, or binding site plans on sites with erosion hazard areas shall comply with the following additional requirements:

(a) Except as provided in this section, existing vegetation shall be retained on all lots until building permits are approved for development on individual lots;

(b) If any vegetation on the lots is damaged or removed during construction of the subdivision infrastructure, the applicant shall be required to submit a restoration plan to the department for review and approval. Following approval, the applicant shall be required to implement the plan;

(c) Clearing of vegetation on lots will not be allowed unless the City determines that:

(i) Such clearing is a necessary part of a large-scale grading plan;

(ii) It is not a reasonable alternative to perform such grading on an individual lot basis; and

(iii) Drainage from the graded area will meet water quality standards to be established by the adopted surface water design manual and Title 13 Surface Water Management.

Citizens for Sammamish mark-up

Deleted: M

Deleted: P

Commented [EM37]: Item 4-1

Deleted: T

Commented [C4S-38]: Director should be required to have justifiable cause that is identified.

Deleted: a critical areas

Deleted: y

Deleted: ,

Deleted: hydrology, soils and storm water retention studies,

Deleted: d

Commented [CdS39]: Item 4-1

(4) Where the City determines that erosion from a development site poses a significant risk of damage to downstream receiving waters, based either on the size of the project, the proximity to the receiving water or the sensitivity of the receiving water, the applicant shall be required to provide regular monitoring of surface water discharge from the site as required by the adopted Surface Water Design Manual and City of Sammamish Addendum. If the project does not meet the applicable provisions of the adopted water quality standards as established by law, the City may suspend further development work on the site until such standards are met.

Deleted: (2009)

Commented [Cd540]: Item 4-2

(5) The use of hazardous substances, pesticides, and fertilizers in erosion hazard areas may be prohibited by the City. (Ord. 02005-193 § 1; Ord. 099-29 § 1)

21A.50.225 Erosion hazards near sensitive water bodies overlay.

Deleted: - Special district

Deleted: special

Deleted: district

(1) The purpose of the erosion hazards near sensitive water bodies overlay is to provide a means to designate sloped areas posing erosion hazards that drain directly to lakes or streams of high resource value that are particularly sensitive to the impacts of increased erosion and the resulting sediment loads from development.

(2) General development standards. The following development standards shall be applied to all properties within the erosion hazard near sensitive water body overlay:

Commented [EM41]: Re-organization for clarity

(a) The one (1) acre exemption in the Storm Water Design Manual Addendum shall not apply within the erosion hazards near sensitive water body overlay.

Commented [EM42]: Item 4-15d

(b) If the application of this section would deny all reasonable use of property, the applicant may apply for a reasonable use exception pursuant to SMC 21A.50.070(2).

Commented [EM43]: Re-organization for clarity

(c) The director may modify the property-specific development standards required by this section when a critical areas study is conducted by the applicant and approved by the director which demonstrates that the proposed development substantially increases water quality by showing all of the following:

(i) Water quality on site is improved through site enhancements and/or other innovative management techniques;

Deleted: The department of community development shall maintain a map of the boundaries of the erosion hazard near sensitive water bodies overlay district.¶

Commented [C45-44]: Clarification.

Deleted: No-disturbance

Commented [C45-45]: Clarification.

Deleted: no-disturbance

Deleted: erosion hazards near a sensitive water bodies special district overlay

(ii) The development project will not subject downstream channels to increased risk of landslide or erosion; and

(iii) The development project will not subject the nearest sensitive water body to additional erosion hazards.

(3) Sensitive water bodies special district overlay area development standards. The following development standards shall be applied, in addition to all applicable requirements of this chapter, to development proposals located within the Sensitive water bodies special district overlay area:

Deleted: (a) A no-disturbance area shall be established on the sloped portion of the special district overlay to prevent damage from erosion. The upslope boundary of the no-disturbance area lies at the first obvious break in slope from the upland plateau over onto the steep valley walls. The downslope boundary of the no-disturbance area is the extent of those areas designated as erosion or landslide hazard areas. The department shall maintain maps of the approximate location of the no-disturbance areas, which shall be subject to field verification for new development proposals.

1 (a) Development shall not occur in the Sensitive water bodies special district overlay
2 area, except for the development activities listed in subsection (3)(a)(i) of this section. Development
3 activities listed in subsection (3)(a)(i) of this section shall only be permitted if they meet the
4 requirements of subsection (3)(a)(ii) of this section.

5 (i) Development activities may be permitted as follows:

6 (A) For single-family residences, associated landscaping and any appurtenances on pre-
7 existing separate lots;

8 (B) For utility corridors to service existing development along existing rights-of-way
9 including any vacated portions of otherwise contiguous rights-of-way, or for the
10 construction of utility corridors identified within an adopted water, storm water, or sewer
11 comprehensive plan;

12 (C) For streets providing sole access to buildable property and associated utility facilities
13 within those streets;

14 (D) For public park facilities including parking lots, restrooms or recreational structures
15 and pedestrian trail/sidewalks; or,

16 (E) Work authorized pursuant to the pilot program.

17 (ii) The development activities listed in subsection (3)(a)(i) of this section may be permitted
18 only if the following requirements are met:

19 (A) Where applicable under SMC 21A.50.120, a report that meets the requirements of
20 SMC 21A.50.130 shall show that the development activities will not subject the area to
21 risk of landslide or erosion and that the purpose of the no-disturbance area is not
22 compromised in any way;

23 (B) The development activities shall be mitigated, monitored and bonded consistent with
24 the mitigation requirements applicable to environmentally critical areas;

25 (C) The development activities are limited to the minimal area and duration necessary for
26 construction; and

27 (D) The development activities are consistent with this chapter.

28 (b) New single-family home construction or modifications or additions to existing single-family homes
29 on existing legal lots that will result in a total site impervious surface of more than 2,000 square feet
30 shall provide a drainage design, using the following sequential measures, which appear in order of
31 preference:

32 (i) Infiltration of all site runoff shall be required to the maximum extent technically feasible in
33 soil conditions, consistent with the infiltration system design requirements of the KCSWDM;

Deleted: b

Deleted: Land clearing or d

Commented [C4S-46]: Clarificatoin.

Deleted: no-disturbance

Deleted: clearing

Deleted: b

Deleted: Clearing

Deleted: b

Deleted: b

Deleted: Clearing

Deleted: or

Deleted: .

Deleted: clearing

Deleted: b

Deleted: A

Deleted: clearing

Deleted: clearing

Deleted: clearing

Deleted: clearing

Commented [EM47]: Re-organization for clarity

(ii) Development proposals that meets the goals of Low Impact Development, as follows:

(A) ~~Sixty-five (65)~~ percent of the site shall remain as open space.

Commented [EM48]: Item 4-15e

(B) ~~No more than ten (10)~~ percent of the gross site area may be covered with impervious surface.

(C) ~~Limit stormwater discharge volumesto match average annual volume discharged from the pre-developed forested site conditions as determined using a calibrated continuous simulation hydrologic model based on the EPA's HSPF program or an approved equivalent model. The city may modify these requirements based upon site specific analysis of the feasibility of required improvements, standards and specifications. Such analysis shall include evaluation of site and vicinity soils, hydrology, and other factors, as determined by the City, affecting the successful design of the stormwater or low impact development improvements. The city shall consider purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal when evaluating a waiver or modification request. The applicant shall bear the burden of proof that a waiver or modification is warranted.~~

(iii) For development proposals that cannot infiltrate all site runoff, the applicant shall design a drainage system that provides a drainage outlet designed using the best available science techniques to limit the risk of landslide or erosion to the no-disturbance area; and

(iv) Structural modification of, addition to or replacement of legally created single detached residences and improvements that were legally established according to the regulations in place at the time of establishment, shall be exempt from the provisions of this section.

(4) Development standards for properties draining to the no-disturbance area. The following development standards shall be applied, in addition to all applicable requirements of this chapter, to development proposals located within the erosion hazards near sensitive water body overlay that drain to no-disturbance area:

Commented [EM49]: Re-organization for clarity

(a) New proposed subdivisions, short subdivisions, public institutions, commercial site development permits, and binding site plans for sites that drain predeveloped runoff to the no-disturbance zone shall evaluate the suitability of on-site soils for infiltration. All runoff from newly constructed impervious surfaces shall be retained on site unless this requirement precludes a proposed subdivision or short subdivision from achieving 75 percent of the maximum net density as identified in Chapter 21A.25 SMC. When 75 percent of the maximum net density cannot be met, the applicant shall retain runoff on site and a perforated tightline (per the adopted surface water design manual and Title 13 Surface Water Management,) shall be used to connect each lot to the central drainage system. The following drainage systems shall be evaluated, using the following sequential measures, which appear in order of preference:

Deleted: c

Deleted: ed

Deleted: Figure C.2.1, Appendix C, of the 1998 KCSWDM, as amended

(i) Infiltration of all site runoff shall be required in granular soils as defined in the adopted surface water design manual and Title 13 Surface Water Management;

Deleted: King County Surface Water Design Manual (KCSWDM)

(ii) Infiltration of downspouts shall be required in granular soils and in soil conditions defined as allowable in the KCSWDM when feasible to fit the required trench lengths on site. All flows not going to an individual infiltration system shall be detained on site using the most restrictive flow control standard; and

(iii) When infiltration of downspouts is not feasible, the applicant shall design a drainage system that will detain flows on site using the applicable flow control standard and shall install an outlet from the drainage system designed using the best available science techniques to limit the risk of landslide or erosion to the no-disturbance area; provided, that in no case shall development proposals generating more than 2,000 square feet of impervious surface create point discharges in or upstream of the no-disturbance or landslide hazard areas.

(b) For the portions of proposed subdivisions, short subdivisions and binding site plans that cannot infiltrate runoff up to the 100-year peak flow, at least 25 percent shall remain undisturbed and set aside in an open space tract consistent with SMC 21A.50.160 through 21A.50.190. The open space tract shall be located adjacent to any required critical area tracts and shall be designed to maximize the amount of separation between the critical area and the proposed development. If no critical areas tracts are required, the open space tract shall be located to provide additional protection to the no-disturbance area.

(c) For the portions of all subdivisions and short subdivisions that cannot infiltrate runoff up to the 100-year peak flow, no more than 35 percent of the gross site area shall be covered by impervious surfaces. For new subdivisions and short subdivisions, maximum lot coverage should be specified for subsequent residential building permits on individual lots.

(5) Pilot Program.

(a) Establishment of Pilot Program. A Pilot Program is hereby established to allow clearing and development projects within the no-disturbance area as set forth herein on land that has slopes of less than 40 percent grade and that is located outside of environmentally critical area buffers.

(b) Purpose. The purpose of this Pilot Program is to allow for limited development within the Sensitive water bodies special district overlay area under strict limitations in order to evaluate the ability to allow increased development within the no-disturbance area without adversely affecting the water quality of Lake Sammamish. Projects qualifying for this Pilot Program would not be subject to the preceding sections of 21A.50.225.

(c) Eligible Projects. Projects eligible for inclusion in this Pilot Program include, without limitation, three (3) subdivisions with direct discharges to the lake using a tightline system, three (3) subdivisions without direct discharge via a tightline, and three (3) short subdivisions that are designed subject to one of the following:

(i) Where direct access to Lake Sammamish is available, the applicant shall install permanent water quality treatment per adopted manual and a tightline storm drain system discharging directly into Lake Sammamish designed by a professional engineer using the most current

Citizens for Sammamish mark-up

Deleted: (d) New single-family home construction or modifications or additions to existing single-family homes on existing legal lots that will result in a total site impervious surface of more than 2,000 square feet shall provide a drainage design, using the following sequential measures, which appear in order of preference:¶

(i) Infiltration of all site runoff shall be required to the maximum extent technically feasible in soil conditions, consistent with the infiltration system design requirements of the KCSWDM;¶

(ii) For development proposals that cannot infiltrate all site runoff, impervious surfaces shall be infiltrated to the maximum extent technically feasible in soil conditions, consistent with the infiltration system design requirements of the KCSWDM; ¶

(iii) For development proposals that cannot infiltrate all site runoff, the applicant shall design a drainage system that provides a drainage outlet designed using the best available science techniques to limit the risk of landslide or erosion to the no-disturbance area; and¶

(iv) Structural modification of, addition to or replacement of legally created single detached residences and improvements in existence before January 1, 2006, that do not increase the existing total footprint of the residence and associated impervious surface by more than 200 square feet over that existing before January 1, 2006, shall be exempt from the provisions of this section.

Deleted: e

Deleted: f

Commented [EM51]: Item 4-15d

Commented [C4S-52]: No disturbance should be replaced with Sensitive water bodies special district overlay throughout. It is no longer a no-disturbance area.

Deleted: no disturbance

Commented [EM53]: Item 4-15g

1 drainage manual and technologies. The applicant shall also install temporary erosion
2 sediment control improvements, in particular active water quality treatment. The
3 tightlinesystem shall extend through the property and be available by extension or easement
4 upstream to properties that naturally drain to the subject property; or,

5 (ii) Where direct access to Lake Sammamish is not available, the applicant shall design a
6 project consistent with the development standards of Low Impact Development, specifically:

- 7 (A) Sixty-five (65) percent of the site shall remain as forested open space. Re-
8 vegetation shall be required to convert non-forested open space to forested as
9 part of the project approval.
10 (B) No more than ten (10) percent of the gross site area may be covered with
11 impervious surface.
12 (C) Limit stormwater discharge volumes to match average annual volume discharged
13 from the pre-developed forested site conditions as determined using a calibrated
14 continuous simulation hydrologic model based on the EPA's HSPF program or an
15 approved equivalent model. The city may modify these requirements based
16 upon site specific analysis of the feasibility of required improvements, standards
17 and specifications. Such analysis shall include evaluation of site and vicinity soils,
18 hydrology, and other factors, as determined by the City, affecting the successful
19 design of the stormwater or low impact development improvements. The city
20 shall consider purpose, effectiveness, engineering feasibility, commercial
21 availability of technology, best management practices, safety and cost of the
22 proposal when evaluating a waiver or modification request. The applicant shall
23 bear the burden of proof that a waiver or modification is warranted.

24 (iii) Where access to Lake Sammamish is only available via connection to an existing offsite,
25 manmade conveyance, the applicant shall design a project consistent with the following:

- 26 (A) The project site must be less than 5 acres in size;
27 (B) Permanent stormwater treatment and flow control facilities shall be installed
28 consistent with current City standards. In addition, these facilities shall be
29 designed to achieve a goal of 60% total phosphorus (TP) removal for the Water
30 Quality design flow or volume (as defined in Section 6.2.1, p. 6-17 of the 2009
31 KCSWDM);
32 (C) Stormwater detention shall be enhanced to achieve Level 3 flow control or
33 equivalent based upon the adopted surface water design manual and Title 13
34 Surface Water Management;
35 (D) All treatment and flow control facilities, tightlines, and connections to existing
36 offsite, manmade conveyances shall be designed by a professional engineer,
37 using the adopted surface water design manual. The off-site manmade
38 conveyance shall be evaluated per section 1.2.4.2 (Conveyance Requirements for
39 Existing Systems) of the adopted surface water design manual and Title 13
40 Surface Water Management. A downstream analysis of all open channel
41 elements of the off-site, manmade conveyance shall be required. The analysis
42 shall address the entirety of the conveyance from the project site to Lake
43 Sammamish and shall include a field inspection, geotechnical review, and
44 quantitative hydraulic analysis. The analysis shall be subject to a third-party peer
45 review at the applicant's expense. Any necessary repairs or improvements to the

Commented [EM54]: Item 4-15d

Commented [C45-55]: LID should not be a part of the Pilot Program. It should be a permanent element of the code. Current technologies provide adequate protection from erosion per 2012 DOE Storm Water manual Vol 2, sect 4.1.

Commented [C45-56]: Phosphorus removal clarification.

Deleted: remove 60 percent of total phosphorus

Commented [C45-57]: An analysis and 3rd party peer review of the open channel conveyance (to Lake Sammamish) in accordance with the adopted storm water design manual should be performed first to determine if there is a need for further study and if so, specify the study(s) required. Tab 1 - (E) Lipinsky Minority Report #3 - 2-1-13 Stating that the adopted storm water design manual is adequate & Comment 207, page 2, p 3

existing offsite, manmade conveyance, as identified in the downstream analysis, shall be required to ensure that the conveyance can function properly without creating or exacerbating erosive or flooding conditions within the conveyance or on other affected areas;

(E) Temporary erosion and sediment control improvements, in particular temporary flow attenuation and active water quality treatment, shall be installed in accordance with current City standards, subject to the additional provisions of 5(e), below;

(F) Effective impervious surface coverage on each residential lot shall be limited to a maximum of 50 percent of the lot area;

(G) A minimum of 15 percent of the gross project site area shall be retained as open space. This open space shall be in addition to the open space otherwise required for recreational use, and shall be established in dedicated tracts that may include stormwater management facilities;

(H) In addition to meeting current tree retention standards per SMC 21A.35.210(1)(a), all dedicated open space areas shall be revegetated. Revegetation shall consist of: native trees (70% evergreen), provided at a rate of 1 per 200 square feet and spaced no more than 40 feet on center; native shrubs, provided at a rate of 1 per 20 square feet; and groundcover pursuant to SMC 21A.35.080. Revegetation shall apply to disturbed areas not otherwise occupied by storm water management facilities or recreation area;

(I) A minimum of 15 percent of each residential lot shall contain drought-tolerant native plantings; and,

(J) Each single-family residence developed shall provide roof rainwater harvesting (collection, storage, and distribution) facilities sufficient to flush toilets for a family of four.

(d) Pilot Program Administration.

(i) Application. Applications for eligible projects meeting the provisions of 5(c) above must be submitted within three calendar years from the effective date of the adoption by ordinance of the Pilot Program on forms provided by the Department.

(A) Application for eligible projects shall be accepted in the order received. To qualify for application, an applicant must have a complete application as described in the city's application material and SMC 20.05, and completed any necessary preliminary steps prior to application as set forth in SMC 20.05. The City shall maintain a register of applications submitted after the maximum number of application have been received.

(B) In the event that an application for a project accepted into the Pilot Program is withdrawn by the applicant or cancelled by the City prior to the expiration of the Pilot Program, the next submitted application on the register for the same development type shall be accepted into the Pilot Program.

(C) The city shall use its authority under SMC 20.05.100 to ensure expeditious processing of subdivision applications. In particular, the director shall set a reasonable deadline for the submittal of corrections, studies, or other information when requested; an extension may be provided based upon a

reasonable request. Failure by the applicant to meet a deadline shall be cause for the department to cancel/deny the application.

(D) Site development construction shall begin no later than 18 months from the date of preliminary plat approval. The director may authorize a one year extension based upon extenuating circumstances.

Commented [C45-58]: Examples of extenuating circumstance should be provided.

(ii) Pilot Program Expiration. The Pilot Program shall expire and no further applications shall be accepted after such three year period as established in subsection "(d)(i)" above. Projects for which applications are accepted into the Pilot Program may be reviewed, approved and constructed, under the terms of the Pilot Program, even if such review, approval, or construction occurs after the Pilot Program has expired.

(e) Development Restrictions. Projects accepted under this Pilot Program may conduct clearing and development in the Sensitive water bodies special district overlay area, and shall not be subject to subsection 21A.50.225(2) so long as such clearing and development meets all of the following requirements:

Deleted: no-disturbance

(i) The development shall comply with the adopted Surface Water Design Manual (KCSWDM) and Title 13 Surface Water Management;

(ii) Clearing of the site shall be limited based on the treatment capacity designed into the permanent and temporary water quality treatment systems installed;

(iii) Construction Season Work Limits - Land clearing and grading may only occur between May 1st to September 30th with the phases of construction limited as follows:

(A) On or after May 1st, site clearing and grading necessary for the installation of permanent and temporary water quality treatment and conveyance may occur. Clearing and grading shall be limited to those portions of a site where such work is necessary to install tight-line stormwater conveyance, permanent and temporary stormwater detention, and/or water quality facilities. For the purposes of temporary erosion and sediment control, the required tightline system may be either a portion of the permanent stormwater conveyance system if feasible, or a temporary tightline system to be replaced by the permanent system as construction progresses;

(B) On or after June 1st, development of the site may occur;

(C) No later than September 30th, all site clearing and grading activity must be completed and the site fully prepared for winter rains, through techniques such as hydroseeding or stabilization as set forth in an approved Construction Season Work Limit Plan;

(D) Seasonal construction limitations may be extended with permission of the director if appropriate erosion control measures and practices are in place and weather patterns permit.

1 (iv) Construction Season Work Limit Implementation. City approval of a temporary
2 erosion and sediment control plan consistent with this section, SMC 21A.50.220, and
3 other laws and regulations is required prior to any site work. The temporary erosion
4 and sediment control plan shall comply with grading limits, shall include Construction
5 Season Work Limits that comply with the construction season limitations, and shall
6 include a Close Out Plan identifying the actions that will be taken to ready the site for
7 winter weather. The Close Out Plan shall include the following:

8 (A) By August 15th City approval of any proposed changes to the Close Out Plan to
9 assure that the site will be prepared for winter weather by September 30th is
10 required.

11 (B) By September 1st review and approval of any revisions to the close out plan is
12 required.

13 (C) By September 15th, city inspection is required of the site to confirm that all
14 mandatory elements of the Close Out Plan are being implemented. Following
15 inspections, the city shall direct the applicant to take any additional actions that
16 are necessary and may order all construction work to be stopped other than
17 work to prepare the site for winter weather.

18 (D) By September 30th all site work to prepare the site for winter weather shall be
19 completed.

20 (E) Seasonal construction limitations may be extended with permission of the
21 director if appropriate erosion control measures and practices are in place and
22 weather patterns permit.

23 (v) Early Installation of Permanent Stormwater Management System. In addition to
24 installation of all required Temporary Sediment and Erosion Control measures, and
25 prior to any grading, other than grading necessary for installation of the stormwater
26 management system, the applicant shall construct the Project's stormwater
27 management systems in accordance with plans approved by the City. Stormwater
28 systems shall include permanent and temporary water quality treatment and
29 detention facilities specified in the latest approved version of the Surface Water
30 Design Manual and the pipes and outlet facilities necessary to convey stormwater to
31 the approved discharge location.

32 (A) Temporary water quality treatment facilities shall be sized to treat runoff
33 generated by cleared areas during the 10 year storm event during May through
34 September and release treated runoff with a measured turbidity of no more than
35 25 NTU.

36 (B) Temporary water quality treatment facilities shall include active sediment
37 controls, such as chemical treatment, enhanced filtration or a combination of
38 both per DOE guidelines (Section C250 & C251, Volume II, Department of Ecology
39 Stormwater Management Manual).

Commented [EM59]: Item 4-15g

Deleted: and the 25 year storm event for the remainder
of the year

(f) Post Development Phosphorous Control. Post development water quality treatment shall be designed to achieve a goal of 60% total phosphorus (TP) removal for the Water Quality design flow or volume (as defined in Section 6.2.1, p. 6-17 of the 2009 KCSWDM).

Commented [EM61]: Item 4-15g

(g) Monitoring and Reporting on Pilot Program projects. The purpose of collecting monitoring and reporting information on the pilot program projects is to create inform the eventual legislative decision on development in the no-disturbance area. Projects authorized by this pilotprogram shall collect and report the following:

Commented [C4S-62]: Phosphorus removal clarification.

Deleted: Post development water quality treatment shall be designed to remove, on an annual basis, 60% or more of all new total phosphorous loading resulting from new development and associated storm water discharge.

(i) Monitoring Data. Water quality monitoring data collected pursuant to this section shall include the following:

- (A) Turbidity;
- (B) Total phosphorous;
- (C) Total suspended solids;
- (D) Flow rate; and,
- (E) Volume.

Water quality monitoring data shall be retained by the project applicant for a period of five years after final inspection of the last house built.

(ii) Prior to Construction. Prior to any site construction activity, the project applicant shall be responsible for completing visual inspections of the site and downstream properties to identify possible sources of erosion before, during, and after construction to provide a baseline condition for other data collection.

(iii) During Construction. During any site construction activity the project applicant shall be responsible for collecting monitoring data in accordance with the frequency established by the NPDES permit at the natural discharge location. Monitoring data shall be collected prior to the start of construction, through the construction period and until the last house has been built on the site.

(iv) Following Construction. Following the final inspection of the last house built, the project applicant shall be responsible for collecting monitoring data for five years or until legislative action is taken by the City Council. Data collection shall occur at a frequency of seven times a year between the months of October and June.

Commented [C4S-63]: If legislative action is taken by the City Council, applicant should no longer bear the expense of reporting.

(v) Water Quality Reporting. Monitoring data shall be summarized in annual water quality reports submitted to the city. Annual reports shall evaluate the effect on King County water quality data from Lake Sammamish.

Commented [C4S-64]: City Council should be kept abreast of the Pilot Program results annually to allow for any adjustments that may be necessary to make.

(vi) Administrative rules. The director is authorized to adopt administrative rules to ensure the successful water quality data collection, monitoring, and reporting to the city.

(h) Pilot Program Evaluation. The city shall monitor the pilot program through the annual reports and shall summarize the report findings in a report evaluating how well each project achieved the pilot program's purpose and goals and present the report to the City Council annually along with any recommended legislative action.

Deleted: (g) If the application of this section would deny all reasonable use of property, the applicant may apply for a reasonable use exception pursuant to SMC 21A.50.070(2).
(h) The director may modify the property-specific development standards required by this section when a critical areas study is conducted by the applicant and approved by the director which demonstrates that the proposed development substantially increases water quality by showing the following:
(i) Water quality on site is improved through site enhancements and/or other innovative management techniques;
(ii) The development project will not subject downstream channels to increased risk of landslide or erosion; and
(iii) The development project will not subject the nearest sensitive water body to additional erosion hazards. (Ord. 02009-250 § 1; Ord. 02005-193 § 1)

21A.50.230 Frequently flooded areas.

Deleted: ¶
(a)

Deleted: (b) The

Deleted: director may use additional flood information that is more restrictive or detailed than that provided in the Flood Insurance Study conducted by the Federal Emergency Management Agency (FEMA) to designate frequently flooded areas, including data on channel migration, historical data, high water marks, photographs of past flooding, location of restrictive floodways, maps showing future build-out conditions, maps that show riparian habitat areas, or similar information.¶

Commented [CdS66]: Item 4-7
Deleted: all edges

Deleted: 2

Deleted: a

Deleted: waive the

Commented [CdS67]: Item 5-8

Deleted: requirement

Deleted: (b)

Commented [EM68]: Item 5-6

Commented [EM69]: Item 5-6

Deleted: (Div) An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;

(iv) An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm event;

(v) Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on downslope properties;

(vi) Recommendations for building siting limitations;

(vii) An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion; and

Deleted: ¶

(Gvii) A study of slope stability including an analysis of proposed cuts, fills, and other site grading;

Deleted: and

Deleted: .

(viii) A comprehensive study of slope stability including an analysis of proposed cuts, fills, and other site grading and construction effects where the overall minimum factor of safety for slope stability is 1.5 for static conditions and 1.1 for seismic conditions as based on current building code seismic design conditions. (4)

Commented [Cd572]: Item 4-11

Deleted: ¶

Deleted: 3

Unless otherwise provided herein or as part of an approved alteration, removal of any vegetation from a landslide hazard area or buffer shall be prohibited, except for limited removal of vegetation necessary for surveying purposes and for the removal of hazard trees determined to be unsafe by the City. The City may require the applicant to submit a report prepared by a certified arborist to confirm hazard tree conditions. Notice to the City shall be provided prior to any vegetation removal permitted by this subsection.

(5) Vegetation on slopes within a landslide hazard area or buffer that has been damaged by human activity or infested by noxious weeds may be replaced with native vegetation pursuant to an enhancement plan approved by the City pursuant to SMC 21A.50.060. The use of hazardous substances, pesticides, and fertilizers in landslide hazard areas and their buffers may be prohibited by the City.

Deleted: 4

(6) Alterations to landslide hazard areas and buffers may be allowed only as follows:

Deleted: 5

(a) A landslide hazard area located on a slope 40 percent or steeper may be altered only if the alteration meets the following standards and limitations:

(i) Approved surface water conveyances, as specified in the adopted surface water design manual and Title 13 Surface Water Management, may be allowed in a landslide hazard area if they are installed in a manner to minimize disturbance to the slope and vegetation;

Deleted: applicable

Deleted: City-adopted storm water requirements

(ii) Public and private trails may be allowed in a landslide hazard area subject to the standards and mitigations contained in this chapter, development standards in Chapter 21A.30 SMC, and requirements elsewhere in the SMC, when locating outside of the hazard area is not feasible;

(iii) Utility corridors may be allowed in a landslide hazard area if a critical areas study shows that such alteration will not subject the area to the risk of landslide or erosion;

(iv) Limited trimming and pruning of vegetation may be allowed in a landslide hazard area pursuant to an approved vegetation management plan for the creation and maintenance of views if the soils are not disturbed;

(v) Stabilization of sites where erosion or landsliding threatens public or private structures, utilities, roads, driveways or trails, or where erosion and landsliding threaten any lake, stream, wetland, or shoreline. Stabilization work shall be performed in a manner that causes the least possible disturbance to the slope and its vegetative cover; and

(vi) Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to City ordinances and regulations may be allowed; provided:

(A) If within the buffer, the structure is located no closer to the landslide hazard area than the existing structure; and

(B) The existing impervious surface within the buffer or landslide hazard area is not expanded as a result of the reconstruction or replacement.

(b) A landslide hazard area located on a slope less than 40 percent may be altered only if the alteration meets the following requirements:

(i) The development proposal will not decrease slope stability on contiguous properties; and

(ii) Mitigation based on the best available engineering and geological practices is implemented that either eliminates or minimizes the risk of damage, death, or injury resulting from landslides;

(c) Neither buffers nor a critical area tract shall be required if the alteration meets the standards of subsection (5)(b) of this section.

Deleted: and

Deleted: (6) New development proposals that will result in a total site impervious surface of more than 2,000 square feet shall submit a drainage plan which complies with all applicable and project specific provisions of the King CountySDM and City of Sammamish Addendum.

Deleted: provide a drainage design, using the following sequential measures, which appear in order of preference:¶

(a) Infiltration of all site runoff shall be required to the maximum extent technically feasible in soil conditions, consistent with the infiltration system design requirements of the KCSWDM;¶

(b) For development proposals that cannot infiltrate all site runoff, impervious surfaces shall be infiltrated to the maximum extent technically feasible in soil conditions, consistent with the infiltration system design requirements of the KCSWDM;¶

(c) For development proposals that cannot infiltrate all site runoff, the applicant shall design a drainage system that provides a drainage outlet designed using the best available science techniques to limit the risk of landslide or erosion to the no-disturbance area; and

Deleted: (d) Structural modification of, addition to or replacement of legally created single detached residences and improvements in existence before January 1, 2006, that do not increase the existing total footprint of the residence and associated impervious surface by more than 200 square feet over that existing before January 1, 2006, shall be exempt from the provisions of this section.¶

Deleted: ¶

(7) The following are exempt from the provisions of this section:

(a) Slopes that are 40 percent or steeper with a vertical elevation change of up to 20 feet if no adverse impact will result from the exemption based on the City's review of and concurrence with a soils report prepared by a licensed geologist or geotechnical engineer; and

(b) The approved regrading of any slope that was created through previous legal grading activities.
(Ord. O2009-250 § 1; Ord. O2005-193 § 1; Ord. O99-29 § 1)

21A.50.270 Seismic hazard areas – Development standards and permitted alterations.

A development proposal containing a seismic hazard area shall meet the following requirements:

(1) All applicable building code requirements; and

(2) Alterations to seismic hazard areas may be allowed only as follows:

(a) The evaluation of site-specific subsurface conditions shows that the proposed development site is not located in a seismic hazard area; or

(b) Mitigation based on the best available engineering and geological practices is implemented that either eliminates or minimizes the risk of damage, death, or injury resulting from seismically induced settlement or soil liquefaction. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

21A.50.280 Critical aquifer recharge areas – Development standards.

(1) Groundwater Quantity Protection Standards. For developments in all CARA classes, the applicant shall provide surface water infiltration as follows:

(a) Seventy-five percent of on-site storm water volume generated from the proposed development shall be infiltrated; provided, that a lesser standard may apply or on-site infiltration may be waived when:

(i) The applicant demonstrates that infiltration is not a reasonable alternative due to site-specific soil and/or geologic conditions;

(ii) It is determined that increased saturation of soils would result in an increased risk to existing facilities and/or adjacent properties;

(iii) Infiltration would result in significant unavoidable impacts to other critical areas or result in an excessive loss of native vegetation; or

(iv) The applicant proposes an addition of no more than 700 square feet of total new impervious surface compared cumulatively to 2005 levels.

(b) If infiltration is not feasible or required, then storm water facilities shall be constructed in accordance with City standards.

(c) The design and implementation of infiltration facilities shall follow the ecology infiltration guidelines specified in the Western Washington Stormwater Manual (2005), or other technical guidance as approved by the City.

(d) To prevent groundwater contamination, storm water infiltration may be prohibited for all or a portion of a site that includes use of hazardous substances.

(2) Groundwater Quality Protection Standards. The following provisions shall apply to development in all CARA classes:

(a) Activities may only be permitted in a critical aquifer recharge area if the proposed activity will not result in a significant increased risk of contamination of drinking water supplies;

(b) The City shall impose development conditions when necessary to prevent degradation of groundwater. Conditions to permits shall be based on known, available and reasonable methods of prevention control and treatment; and

(c) The proposed activity must comply with the water source protection requirements and recommendations of the Federal Environmental Protection Agency, State Department of Ecology, State Department of Health, and the Seattle-King County health district.

1 (3) Regulation of Facilities Handling and Storing Hazardous Materials ~~regulated by the State Department of~~
2 ~~Ecology.~~

3 (a) New and existing commercial and industrial land uses and activities located in Class 1 and Class 2
4 CARAs shall submit a hazardous materials inventory statement with a ~~development proposal.~~

Deleted: land use or building permit application

5 (b) Report Requirement. Commercial and industrial land uses and activities that involve the use,
6 storage, transport or disposal of hazardous materials ~~as regulated by the State of Washington,~~
7 quantities equal to or greater than 20 gallons or the equivalent of 200 pounds, located in Class 1 and
8 Class 2 CARAs, shall submit a critical areas study in accordance with SMC ~~21A.50.130~~ including, as
9 necessary, a hydrogeologic critical area assessment report, spill containment and response plan
10 and/or groundwater monitoring plan, except for the following uses/activities:

Deleted: as defined in this chapter

11 (i) Retail sale of containers five gallons or less in size, where there is less than 500 total gallons;
12 and

13 (ii) Hazardous materials of no risk to the aquifer.

14 (c) A hydrogeologic critical area assessment report, when required by subsection (3)(b) of this
15 section, shall be prepared by a qualified professional to determine potential impacts of
16 contaminants on the aquifer. The report shall include the following site- and proposal-related
17 information, at a minimum:

18 (i) Information regarding geologic and hydrogeologic characteristics of the site including the
19 surface location of all CARA classes located on site or immediately adjacent to the site and
20 permeability of the unsaturated/vadose zone;

21 (ii) Groundwater depth, flow direction and gradient;

22 (iii) Data on wells and springs within 1,300 feet of the project area;

23 (iv) Location of other critical areas, including surface waters, within 1,300 feet of the project
24 area;

25 (v) Historic hydrogeologic data for the area to be affected by the proposed activity;

26 (vi) Best management practices (BMPs) and integrated pest management (IPM) proposed to be
27 used; and

28 (vii) Discussion of the effects of the proposed project on the groundwater quality and quantity,
29 including:

30 (A) Predictive evaluation of groundwater withdrawal and recharge effects on nearby wells
31 and surface water features;

32 (B) Predictive evaluation of contaminant transport based on potential releases to
33 groundwater; and

(C) Predictive evaluation of changes in the infiltration/recharge rate.

(d) A spill containment and response plan, when required by subsection (3)(b) of this section, is required to identify equipment and/or structures that could fail and shall include provisions for inspection as required by the applicable state regulations, repair and replacement of structures and equipment that could fail.

(e) A groundwater monitoring plan, when required by subsection (3)(b) of this section, may be required to monitor quality and quantity of groundwater, surface water runoff, and/or site soils. The City may require the owner of a facility to install one or more groundwater monitoring wells to accommodate the required groundwater monitoring.

(i) Criteria used to determine the need for site monitoring shall include, but not be limited to, the proximity of the facility to production or monitoring wells, the type and quantity of hazardous materials on-site, and whether or not the hazardous materials are stored in underground vessels.

(ii) The City may employ an outside consultant at the applicant's expense to review the monitoring plan and analysis, to ensure that the monitoring plan is followed, and that corrective actions are completed.

(4) Prohibited Uses. Where land uses or materials prohibited in this section are allowed in the Table of Permitted Land Uses (Chapter 21A.20 SMC), this section shall control and the use shall be prohibited.

(a) Table 21A.50.280a identifies land uses and materials prohibited in Class 1, 2 and 3 CARAs for new uses; and

(b) Table 21A.50.280b identifies land uses and materials that should be discontinued, removed and decommissioned where existing in Class 1, 2 and 3 CARAs. The City shall require discontinuation, removal and decommissioning of these uses from Class 1, 2 and 3 CARAs at the time of development and redevelopment, in proportion to the degree and nature of the proposal.

Table 21A.50.280a

Prohibited Land Uses and Materials (New Uses/Activities)	Class 1 (1- and 5- year WHPA)	Class 2 (10-year WHPA)	Class 3 (High Recharge Areas)
Hazardous liquid transmission pipelines	prohibited	allowed subject to compliance with federal and state standards	
Mining, processing and reclamation of any type	prohibited	prohibited	reviewed under development permit
Processing, storage, and disposal of radioactive	prohibited	prohibited	prohibited

Table 21A.50.280a

Prohibited Land Uses and Materials (New Uses/Activities)	Class 1 (1- and 5- year WHPA)	Class 2 (10-year WHPA)	Class 3 (High Recharge Areas)
substances (except certain medical uses)	d		
Underground storage tanks (UST)	prohibited	prohibited	prohibited
UST with double walls, vault and monitor	prohibited	allowed subject to compliance with federal and state standards	
Above ground storage tanks for hazardous substances or hazardous waste with primary and secondary containment area and spill protection plan	allowed subject to compliance with federal and state standards		
Wells for class B and private water systems, when located in a water service area	prohibited	prohibited	allowed subject to compliance with federal and state standards
Golf courses	prohibited	**	**
Land use activities that require the use of nitrates, phosphorus, pesticides, and other chemicals that have a potential to degrade groundwater and surface water quality when used inappropriately or in excess.	Prohibited	**	**
Closed loop geothermal / heat exchange wells	allowed subject to compliance with federal and state standards **		**
Closed loop geothermal/heat exchange systems (surface)	allowed subject to compliance with federal and state standards **		**
Open loop geothermal / heat exchange wells	allowed subject to compliance with federal and state standards **		Prohibited
Injection Wells (storm water or reclaimed water)	Prohibited	Prohibited	**
Cemeteries	prohibited	**	**

Commented [EM74]: Item 1-1

Commented [EM75]: Item 1-2

Commented [EM76]: Item 1-2

Commented [EM77]: Item 1-3

Table 21A.50.280a

Prohibited Land Uses and Materials (New Uses/Activities)	Class 1 (1- and 5- year WHPA)	Class 2 (10-year WHPA)	Class 3 (High Recharge Areas)
Wrecking yards	prohibited	prohibited	prohibited
Landfills with hazardous waste, municipal solid waste, or special waste	prohibited	prohibited	prohibited
Dry cleaning using chlorinated solvents	prohibited	prohibited	prohibited
**Best management practices (BMPS) and integrated pest management (IPM), <u>as applicable</u> , are required for these uses.			

Table 21A.50.280b

Restricted Land Uses and Materials – (Existing Uses/Activities)	Class 1 (1- and 5- year WHPA)	Class 2 (10- year WHPA)	Class 3 (High Recharge Areas)
UST (underground storage tank)	Remove, decommission or upgrade to comply with federal and state standards		
Abandoned wells	Decommission to comply with federal and state standards		
Existing uses that have a long-term potential to degrade water quality in the WHPA	Discontinue, remove or mitigate potential impacts		

(5) Requirements for Specific Uses and Activities.

(a) Commercial Vehicle Repair and Servicing.

(i) In all CARA classes, vehicle repair and servicing must be conducted over impermeable pads, with containment curbs, and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.

(ii) In all CARA classes, no dry wells shall be allowed on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the State Department of Ecology prior to commencement of the proposed activity.

1 (b) Use of Pesticides, Herbicides, and Fertilizers.

2 (i) Residential Use. In all CARA classes, application of household pesticides, herbicides, and
3 fertilizers shall not exceed times, rates, concentrations and locations specified on the
4 packaging.

5 (ii) Other Uses. In Class 1 and 2 CARA areas, proposed developments with maintained
6 landscape areas greater than 10,000 square feet in area shall prepare an operations and
7 maintenance manual using best management practices (BMPs) and integrated pest
8 management (IPM) for fertilizer and pesticide/herbicide applications. The BMPs shall include
9 recommendations on the quantity, timing and type of fertilizers applied to lawns and gardens
10 to protect groundwater quality.

11 (c) Spreading or Injection of Storm Water or Reclaimed Water. Water reuse projects for reclaimed
12 water and storm water are regulated in accordance with the adopted water, sewer or storm water
13 comprehensive plans that have been approved by the Departments of Ecology and
14 Health. Injection wells are prohibited in Class 1 and 2 CARA areas. Injection wells are allowed subject
15 to city review and approval, in Class 3 CARA areas provided injection wells shall comply with the
16 requirements of WAC 173-200 and 173-218 and Sammamish Municipal Code.

Commented [EM78]: Item 1-3

17 (d) Construction Activity. In all CARA classes, if construction vehicles will be refueled on a
18 construction site and/or the quantity of hazardous materials that will be used or stored on a site
19 exceeds 20 gallons, exclusive of the quantity of hazardous materials contained in fuel or fluid
20 reservoirs of construction vehicles, then persons obtaining construction permits shall provide
21 information to the public works department regarding the types and quantities of hazardous
22 materials that will be on-site and then use BMPs to prevent and respond to spills. Construction site
23 refueling must be conducted over impermeable pads, with containment curbs. The operator of the
24 site shall immediately report to the City any spills and is responsible for complete recovery and
25 cleanup.

Deleted: h

26 (e) Fill Quality Standards and Imported Fill Source Statement. In all CARA classes, fill material shall
27 not contain concentrations of contaminants that exceed cleanup standards for soil as specified in
28 the Model Toxics Control Act (MTCA). An imported fill source statement is required for all projects
29 where more than 100 cubic yards of fill will be imported to a site. The City may require analytical
30 results to demonstrate that fill materials do not exceed cleanup standards. The imported fill source
31 statement shall include:

32 (i) Source location of imported fill;

33 (ii) Previous land uses of the source location; and

34 (iii) Whether or not fill to be imported is native, undisturbed soil.

35 (f) In Class 1 and 2 CARAs, on lots smaller than one acre, new on-site septic systems are prohibited,
36 unless:

(i) The system is approved by the Washington State Department of Health and the system either uses an upflow media filter system or a proprietary packed-bed filter system or is designed to achieve approximately 80 percent total nitrogen removal for typical domestic wastewater; or

(ii) The Seattle-King County department of public health determines that the systems required under subsection (5)(f)(i) of this section will not function on the site.

(g) Geothermal / heat exchange wells are allowed, subject to city review and approval, provided:

(i) The system is approved by the Washington Department of Ecology as compliant with the provisions of WAC 173-160; and

(ii) A notice on title is recorded documenting the maintenance requirements of the geothermal / heat exchange wells

21A.50.290 Wetlands – Development standards.

A development proposal on a parcel or parcels containing a wetland or associated buffer of a wetland located on-site or off-site shall meet the following requirements:

(1) The following standard buffers shall be established from the wetland edge:

Wetland Category		Standard Buffer Width (ft)
Category I:	Natural Heritage or bog wetlands	215
	Habitat score 29–36	200
	Habitat score 20–28	150
	Not meeting above criteria	125
Category II:	Habitat score 29–36	150
	Habitat score 20–28	100
	Not meeting above criteria	75
Category III:	Habitat score 20–28	75
	Not meeting above criteria	50
Category IV:		All Land Use Types - 50
Category III and IV:	subject to SMC 21A.50.320	

(a) Where a legally established and constructed street or the East Lake Sammamish Trail transects a wetland buffer, the department may approve a modification of the standard buffer width to the edge of the street or the East Lake Sammamish Trail if the isolated part of the buffer does not provide additional protection of the wetland and provides insignificant biological, geological or hydrological buffer functions relating to the wetland. If the resulting buffer distance is less than 50

percent of the standard buffer for the applicable wetland category, no further reduction shall be allowed.

(b) In addition to the provisions of SMC 21A.50.060, where a buffer has been previously established on a legally created parcel or tract that was legally established according to the regulations in place at the time of establishment, and is permanently recorded on title or placed within a separate tract, the buffer shall remain as previously established, provided it is equal to or greater than 50 percent of the current required standard buffer distance for the applicable wetland category.

Commented [EM79]: Item 5-9

Deleted: w

Deleted: through City or county development review on or after November 27, 1990

Deleted: be

Deleted: at least as large as

(c) Where wetland functions have been improved due to voluntary implementation of an approved stewardship, restoration and/or enhancement plan that is not associated with required mitigation or enforcement, the standard wetland buffer width shall be determined based on the previously established wetland category and habitat score as documented in the approved stewardship and enhancement plan.

(2) Removal of any native vegetation or woody debris from a wetland or wetland buffer may be allowed only as part of an approved alteration. Only native vegetation can be planted in wetland or buffer areas, unless the planting is otherwise allowed by SMC 21A.50.060 –Allowance for Existing Urban Development and Other Uses.

Commented [EM80]: Item 5-3

Deleted: Repealed by Ord. 02009-264.

(3) Activities and uses shall be prohibited from wetlands and associated buffers, except as provided for in this chapter.

(4) Any wetland restored, relocated, replaced, or enhanced because of a wetland alteration shall have the buffer required for the highest wetland class involved.

(5) For a wetland buffer that includes a landslide hazard area, the buffer width shall be the greater of either the buffer width required by the wetland's category in this section or 25 feet beyond the top of the landslide hazard area.

(6) Buffer Averaging. Buffer width averaging may be allowed by the department if:

(a) It will provide additional protection to wetlands or enhance their functions, as long as the total area contained in the buffer on the development proposal site does not decrease (see also SMC 21A.30.210(5) for buffer compensation requirements for trails);

(b) The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland would benefit from a wider buffer in places and would not be adversely impacted by a narrower buffer in other places;

(c) The buffer width is not reduced to less than 50 percent of the standard buffer width at any location;

Deleted: and

(d) The buffer width is decreased on one part of a wetland and increased on another part of the same wetland feature; and

Deleted: e

Commented [Cd581]: Item 5-10

(e) The buffer is associated with a development proposal and it will not further encumber a neighboring property not owned by the applicant.

Deleted: f

Commented [CdS82]: Item 5-11

(f) Buffer averaging may be used in conjunction with buffer reduction options in this section, provided the total combined reduction does not reduce the buffer to less than 50 percent of standard buffer width at any location.

Deleted: d

Deleted: .

(7) Increased Buffers. Increased buffer widths may be required by a distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas when the following occur:

(a) When a Category 1 or 2 wetland with a habitat score of greater than 29 points (per Washington State Wetland Rating System for Western Washington – Department of Ecology 2009 or as revised) is located within 200 feet of the wetland subject to the increased buffer;

(b) Fish and wildlife habitat conservation area and habitat connections are present;

(c) Landslide or erosion hazard areas are contiguous to wetlands;

(d) Groundwater recharge and discharge areas are at risk;

(e) Or to offset buffer impacts, such as trail and utility corridors; and

(f) Ecological wetland functions are at risk including, but not limited to the following:

(i) Habitat complexity, connectivity and biological functions;

(ii) Seasonal hydrological dynamics as provided in the adopted Surface Water Design Manual;

(iii) Sediment removal and erosion control;

(iv) Pollutant removal;

(v) Large wood debris (LWD) recruitment;

(vi) Water temperature;

(vii) Wildlife habitat; and

(viii) Microclimate.

(8) Buffer Reduction. Buffers may be reduced when buffer reduction impacts are mitigated and result in equal or greater protection of the wetland functions. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SMC 21A.50.135. A plan for mitigating buffer-reduction impacts must be prepared using selected incentive-based mitigation options from the list below. The following incentive options for reducing standard buffer widths shall be considered cumulative up to a maximum reduction of 50 percent of the standard buffer width. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native

Deleted: Increased Buffers. The department may require the standard buffer to be increased by the greater of 50 feet or a distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas when a Category 1 or 2 wetland with a habitat score greater than 20 points is located within 300 feet of:

(a) Another Category 1 or 2 wetland;

(b) A fish and wildlife habitat conservation area; or

(c) A type S or F stream.

The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect wetland and habitat functions.

1 vegetation in the degraded portions of the remaining buffer area and shall include a five-year monitoring and
2 maintenance plan.

3 (a) ~~Up to 20 percent reduction in the standard buffer width may be allowed if water quality is~~
4 ~~improved in excess of the requirements of the adopted surface water design manual and Title 13~~
5 ~~Surface Water Management, through the use of created and/or enhanced wetlands, or ponds~~
6 supplemental to existing storm drainage and water quality requirements.

Deleted: Installation of biofiltration/infiltration mechanisms:
up to 20 percent reduction in the standard buffer width may be
allowed for the installation of bioswales,

7 (b) Removal of existing impervious surfaces:

8 (i) Up to 10 percent reduction in standard buffer width if impervious surfaces within the to-be-
9 remaining buffer area are reduced by at least 50 percent; or

10 (ii) Up to 20 percent reduction in standard buffer width if the to-be-remaining buffer area is
11 presently more than 50 percent impervious and all of it is to be removed.

12 (c) Removal of invasive, nonnative vegetation: up to 10 percent reduction in standard buffer width
13 for the removal and extended (minimum five-year) monitoring and continued-removal maintenance
14 of relatively dense stands of invasive, nonnative vegetation from significant portions of the
15 remaining buffer area.

16 (d) Restoration, preservation and maintenance of the existing wetland and buffer vegetation if the
17 following conditions are present and/or attainable as a result of action:

18 (i) An undisturbed vegetated buffer is preserved in the remaining buffer width; and,

Deleted:

Deleted: of 100 feet

21 (ii) Existing buffer conditions are degraded such that more than 40 percent of the buffer is
22 covered by non-native/invasive plant species and are restored according to a city-approved
23 restoration plan to improve wetland buffer functions; and,

25 (iii) Tree or shrub vegetation covers less than 25 percent of the total buffer area and the area
26 will be re-vegetated according to a city-approved restoration plan with trees and shrubs to
27 replace existing reduced and impacted buffer functions; and,

Deleted:

29 (iv) The wetland buffer has slopes of less than 25 percent.

31 (v) The buffer reduction determination and percentage shall be on a site by site basis based
32 on the applicant's plan and demonstration of improvement to water quality and habitat
33 functions.

Commented [Cd583]: Item 3-10

35 (e) If not already required under an existing development proposal, installation of oil/water
36 separators for storm water quality control: up to 10 percent reduction in standard buffer width.

37 (f) Use of pervious material for driveway/road construction: up to 10 percent reduction in standard
38 buffer width.

39 (g) Restoration of on-site buffer and wetland areas, or restoration of off-site buffer and wetland
40 areas within the same sub-basin of the impacted wetland if no on-site restoration is possible:

(i) Up to 10 percent reduction in standard buffer width if restoration area is at a 2:1 ratio or greater; or

(ii) Up to 20 percent reduction in standard buffer width if restoration area is at a 4:1 ratio or greater.

(h) Removal of significant refuse or sources of toxic material: up to 10 percent reduction in standard buffer width.

Deleted: g

(i) Percentages listed above may be added together to create a total buffer reduction; provided, that the total reduction does not exceed 50 percent of the standard buffer width.

Deleted: h

Commented [C45-84]: Recommended location for new section (9) Buffer Delineation. See text under "Elaboration of comments" at end of this document. (Ref. Exhibits 210, 224, 235, 268)

(9) The use of hazardous substances, pesticides and fertilizers in the wetland and its buffer may be prohibited by the City.

(10) The introduction of livestock into a wetland or wetland buffer is prohibited.

Commented [CdS85]: Item 5-12

21A.50.300 Wetlands – Permitted alterations.

Alterations to wetlands and wetland buffers are not allowed, except as provided for by complete exemptions, allowances for existing urban development and other uses, and exceptions in this chapter or as allowed for by this section.

Deleted: Unless otherwise provided, the following restrictions shall apply to all development proposals that include the introduction of livestock on sites with wetlands or wetland buffers:¶
(a) A plan to protect and enhance the wetland's water quality shall be implemented pursuant to the adopted surface water design manual standards; and¶
(b) Fencing located not closer to the wetland than the outer wetland buffer edge shall be required. (Ord. O2009-264 § 1 (Att. A); Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 2)

Deleted: partial exemptions

(1) Alterations may be permitted if the department determines, based upon its review of critical areas studies completed by qualified professionals, that the proposed development will:

(a) Protect, restore or enhance the wildlife habitat, natural drainage, or other valuable functions of the wetland resulting in a net improvement to the functions of the wetland system;

(b) Design, implement, maintain, and monitor a mitigation plan prepared by a qualified professional;

(c) Perform the mitigation under the direction of a qualified professional; and

(d) Will otherwise be consistent with the purposes of this chapter.

(2) If a wetland is in a flood hazard area, the applicant shall notify affected communities and native tribes of proposed alterations prior to any alteration and submit evidence of such notification to the Federal Insurance Administration.

(3) There shall be no introduction of any nonnative or invasive plant or wildlife into any wetland or wetland buffer except as required by a state or federal permit or approval as otherwise allowed by SMC 21A.50.060 –Allowance for Existing Urban Development and Other Uses.

Commented [EM86]: Item 5-15

Deleted: unless authorized

(4) Utilities may be allowed in wetland buffers if:

(a) The director determines that no reasonable alternative location is available; and

(b) The utility corridor meets any additional requirements for installation, replacement of vegetation and maintenance, as needed to mitigate impacts.

(5) Sewer utility corridors may be allowed in wetland buffers only if:

(a) The applicant demonstrates that the sewer line location is necessary for gravity flow;

Deleted: same

(b) The corridor is not located in a wetland or buffer used by species listed as endangered or threatened by the state or federal government or containing critical or outstanding actual habitat for those species or heron rookeries or raptor nesting trees;

(c) The corridor alignment including, but not limited to, any allowed maintenance roads follows a path farthest from the wetland edge as feasible;

(d) Corridor construction and maintenance protects the wetland and buffer and is aligned to avoid cutting trees greater than 12 inches in diameter at breast height, when possible, and pesticides, herbicides and other hazardous substances are not used;

(e) An additional, contiguous and undisturbed buffer, equal in width to the proposed corridor, including any allowed maintenance roads, is provided to protect the wetland;

(f) The corridor is revegetated with appropriate native vegetation at preconstruction densities or greater immediately upon completion of construction or as soon thereafter as possible, and the sewer utility ensures that such vegetation survives;

(g) Any additional corridor access for maintenance is provided, to the extent possible, at specific points rather than by a parallel road; and

(h) The width of any necessary parallel road providing access for maintenance is as small as possible, but not greater than 15 feet; the road is maintained without the use of herbicides, pesticides or other hazardous substances; and the location of the road is contiguous to the utility corridor on the side away from the wetland.

(6) Joint use of an approved sewer utility corridor by other utilities may be allowed.

(7) ~~Where technically feasible, surface water discharge shall be located outside of the wetland and wetland buffer. Where surface water discharge is authorized within a wetland or wetland buffer, the following shall apply:~~

Deleted: The following surface water management activities and facilities may be allowed in wetlands or their buffers only as follows

Commented [CdS87]: Item 5-13

(a) Surface water discharge to a wetland from a flow control or water quality treatment facility, sediment pond or other surface water management activity or facility may be allowed if the discharge does not increase the rate of flow, change the plant composition in a forested wetland or decrease the water quality of the wetland;

(b) Isolated Category 4 wetlands and buffers may be used as a flow control facility if:

(i) Presettlement pond or water quality treatment is required prior to flow into the wetland;
and

(ii) They are not part of, or immediately adjacent to, a designated wildlife habitat corridor and
all requirements of the applicable City-adopted storm water requirements are met; and

(c) Use of a wetland buffer for a surface water management activity or facility, other than a flow
control or water quality treatment facility, such as an energy dissipater and associated pipes, may be
allowed only if the applicant demonstrates, to the satisfaction of the department, that:

(i) No reasonable alternative exists; and

(ii) The functions of the buffer or the wetland are not adversely affected.

(8) Public and private trails may be allowed in wetland buffers consistent with the standards and
requirements in this chapter, development standards in Chapter 21A.30 SMC, and requirements elsewhere in
the SMC. Proposals for constructing viewing platforms, associated access trails, and spur trails must be
reviewed by a qualified professional and a critical areas study may be required.

(9) A dock, pier, moorage, float, or launch facility may be allowed, subject to the provisions of SMC Title 25,
if:

(a) The existing and zoned density around the wetland is three dwelling units per acre or more;

(b) At least 75 percent of the lots around the wetland have been built upon and no significant buffer
or wetland vegetation remains on these lots; and

(c) Open water is a significant component of the wetland.

(10) Crossings. The use of existing crossings, including but not limited to utility corridors, road and railroad
rights-of-way, within wetlands or buffers for public or private trails is preferred to new crossings, subject to
the standards and requirements in the SMC. New wetland road and trail crossings may be allowed if:

(a) The director determines that:

(i) The crossing is identified as a part of a corridor shown in a City-adopted parks or trails plan,
park master plan, transportation plan, or comprehensive plan, or otherwise is necessary to
connect or construct the road or trail to publicly owned lands, utility corridors, rights-of-way or
other public infrastructure, or is required to provide access to property where no other
reasonable alternative access is possible; or

(ii) The applicant demonstrates that the new crossing creates less overall or less incremental
impacts to critical areas and habitat than the use of an existing corridor while still achieving
overall project goals and objectives;

(b) All crossings avoid or minimize impact to the wetland and provide mitigation for unavoidable impacts through restoration, enhancement or replacement of disturbed areas as described in this chapter and in the SMC;

(c) Crossings do not significantly change the overall wetland hydrology;

(d) Crossings do not diminish the flood storage capacity of the wetland; and

(e) All crossings are constructed during summer low water periods.

(11) Enhancement and Restoration. Wetland enhancement or restoration not associated with any other development proposal may be allowed if accomplished according to a plan for its design, implementation, maintenance and monitoring prepared by and carried out under the direction of a qualified professional. Restoration or enhancement must result in a net improvement to the functions of the wetland system.

(12) Wetland Restoration Project. A wetland restoration project for habitat enhancement may be allowed if:

(a) The restoration is sponsored by a public agency with a mandate to do such work;

(b) The restoration is not associated with mitigation of a specific development proposal;

(c) The restoration is limited to revegetation of wetlands and their buffers and other specific fish and wildlife habitat improvements that result in a net improvement to the functions of the wetland system;

(d) The restoration only involves the use of hand labor and light equipment, or the use of helicopters and cranes that deliver supplies to the project site; provided, that they have no contact with critical areas or their buffers; and

(e) The restoration is performed under the direction of a qualified professional. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

Deleted: (11) Reconstruction, Remodeling, or Replacement of Existing Structures. Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to ordinances and regulations in effect at the time may be allowed, provided:¶
(a) If within the buffer, the structure is located no closer to the wetland than the existing structure; and¶
(b) The existing impervious surface within the buffer or wetland is not expanded as a result of the reconstruction or replacement.¶

Deleted: 2

Deleted: 3

21A.50.310 Wetlands – Mitigation requirements.

When mitigation for wetland and/or wetland buffer impacts is required, mitigation shall meet the requirements listed in SMC 21A.50.145 in addition to the following supplementary requirements:

(1) Equivalent or Greater Biological Functions. Mitigation for alterations to wetland(s) and/or wetland buffer(s) shall achieve equivalent or greater biologic functions and shall be consistent with the Department of Ecology Guidance on Wetland Mitigation in Washington State (2004, Department of Ecology Publication No. 04-06-013), or as revised.

(2) No Net Loss. Wetland mitigation actions shall not result in a net loss of wetland area.

(3) Functions and Values. Mitigation actions shall address and provide equivalent or greater wetland and buffer functions and values compared to wetland and buffer conditions existing prior to the proposed alteration.

Deleted: (a) Acreage Replacement Ratios. The following ratios shall apply to wetland creation or restoration that is in-kind, on-site, the same category, and has a high probability of success. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.¶

Category I

... [2]

(4) Mitigation Type and Location. Mitigation actions shall be in-kind and conducted within the same sub-basin and on the same site as the alteration except when the following apply:

(a) There are no reasonable on-site opportunities for mitigation, or on-site opportunities do not have a high likelihood of success due to development pressures, adjacent land uses, or on-site buffers or connectivity are inadequate;

(b) Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and

(c) Off-site locations have been identified and evaluated in the following order of preference:

(i) Approved fee-in-lieu or mitigation bank program sites within the city limits in accordance with SMC 21A.50.315;

(ii) Approved fee-in-lieu or mitigation bank program sites within the WRIA 8 in accordance with SMC 21A.50.315;

Deleted: shall be in the same sub-basin

Deleted: sequence

Deleted: .

Deleted: i

Deleted: i

Commented [Cd588]: Item 2-8 & 3-3

Deleted: ¶

(5) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and flora.

(6) Mitigation Ratios.

(a) Wetland Mitigation Ratios. The following ratios shall apply to required wetland mitigation. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

(i) Permanent Wetland Mitigation. The following ratios of area of mitigation to area of alteration apply to mitigation measures for permanent alterations.

Commented [EM89]: Item 3-6

Category and type of wetland	Wetland reestablishment or creation	Wetland rehabilitation	1:1 Wetland reestablishment or wetland creation (R/C) and wetland enhancement (E)
Category I bog	Not allowed	6:1 rehabilitation of a bog	Case-by-case
Category I natural heritage site	Not allowed	6:1 rehabilitation of a natural heritage site	Case-by-case
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 E
Category I forested	6:1	12:1	1:1 R/C and 10:1 E
Category II	3:1	8:1	1:1 R/C and 4:1 E

Category III	2:1	4:1	1:1 R/C and 2:1 E
Category IV	1.5:1	3:1	1:1 R/C and 2:1 E

(ii) Temporary Wetland Mitigation. The following ratios of area of mitigation to area of alteration apply to mitigation measures for temporary alterations where wetlands will not be impacted by permanent fill material:

Wetland category	Permanent conversion of forested and shrub wetlands into emergent wetlands			Mitigation for temporal loss of forested and shrub wetlands when the impacted wetlands will be revegetated to forest or shrub communities		
	Enhancement	Re-habilitation	Creation or restoration	Enhancement	Re-habilitation	Creation or restoration
Category I	6:1	4.5:1	3:1	3:1	2:1	1.5:1
Category II	3:1	2:1	1.5:1	1.5:1	1:1	.75:1
Category III	2:1	1.5:1	1:1	1:1	.75:1	.5:1
Category IV	1.5:1	1:1	.75:1	Not applicable	Not applicable	Not applicable

(b) Wetland Buffer Replacement Ratio. Altered wetland buffer area shall be replaced at a minimum ratio of one-to-one, provided that the replacement ratio may be increased at the director's discretion to replace lost functions and values.

Commented [EM90]: Item 3-5

(c) Increased Mitigation Ratio. The director may increase the ratios under the following circumstances:

Deleted: b

Deleted: Replacement

(i) Uncertainty exists as to the probable success of the proposed restoration or creation; or

(ii) A significant period of time will elapse between impact and replication of wetland functions; or

(iii) Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or

(iv) The impact was an unauthorized impact.

(d) Decreased Mitigation Ratio. The director may decrease these ratios under the following circumstances:

Deleted: c

Deleted: Replacement

(i) Documentation by a qualified professional demonstrates that the proposed mitigation actions have a very high likelihood of success. This documentation should specifically identify how the proposed mitigation actions are similar to other known mitigation projects with similar site-specific conditions and circumstances that have been shown to be successful;

(ii) Documentation by a qualified professional demonstrates that the proposed mitigation actions will provide functions and values that are significantly greater than the wetland being impacted; or

(iii) The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful over the course of at least one full year.

(d) Minimum Mitigation Ratio. In all cases of permanent wetland impacts, a minimum acreage replacement ratio of one to one shall be required.

Deleted: Replacement

(7) Wetland Enhancement as Mitigation.

Impacts to wetlands may be mitigated by enhancement of existing significantly degraded wetlands only after a one-to-one minimum acreage replacement ratio has been satisfied. Applicants proposing to enhance wetlands must produce a critical areas study that identifies how enhancement will increase the functions of the degraded wetland and how this increase will adequately mitigate for the loss of wetland function at the impact site.

Deleted: (a)

(8) Restoration Required. Restoration shall be required when a wetland or its buffer is altered in violation of law or without any specific permission or approval by the City in accordance with the following provisions:

Deleted: (b) At a minimum, enhancement acreage shall be double the acreage required for creation or restoration under subsection (6)(a) of this section. The ratios shall be greater than double the required acreage where the enhancement proposal would result in minimal gain in the performance of wetland functions and/or result in the reduction of other wetland functions currently being provided in the wetland.

(a) A mitigation plan for restoration conforming to the requirements of this chapter and section shall be provided.

Deleted: .

Deleted: shall

(b) On sites where non-native vegetation was cleared, restoration shall include installation of native vegetation with a density equal to or greater than the pre-altered site conditions.

Deleted: (Ord. O2005-193 § 1; Ord. O99-29 § 1)

Commented [CdS91]: Item 5-14

21A.50.315 Wetlands – Alternative Mitigation

(1) Wetland banking:

Deleted: banking

Deleted: .

(a) Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:

(i) Criteria in SMC 21A.50.310(4) are met;

(ii) The bank is certified under Chapter 173-700 WAC;

Deleted: a

(iii) The department determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts;

Deleted: b

(iv) The proposed use of credits is consistent with the terms and conditions of the bank's certification; and

Deleted: c

(v) The compensatory mitigation agreement occurs in advance of authorized impacts.

Deleted: d

(b) Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.

Deleted: 2

(c) Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, bank service areas may include portions of more than one adjacent drainage basin for specific wetland functions.

Deleted: 3

(d) Implementation of a mitigation bank is subject to City council review and approval.

Deleted: 4

Deleted: (Ord. 02005-193 § 1)

(2) Fee-in-lieu Mitigation

Commented [EM92]: Item 2-8 & 3-3

Deleted: :

(a) Fee-in-lieu mitigation may be approved for use as compensation for approved impacts to wetlands, when:

(i) Criteria in SMC 21A.50.310(4) are met;

(ii) The fee-in-lieu mitigation program is state certified;

(iii) The department determines that the wetland fee-in-lieu mitigation provides appropriate compensation for the authorized impacts;

(iv) The proposed use of fee-in-lieu mitigation is consistent with the terms and conditions of the fee-in-lieu mitigation program; and

(v) The compensatory mitigation agreement occurs in advance of authorized impacts.

Deleted: ¶

(b) Fee-in-lieu mitigation may be authorized in the city based upon the following order of preference:

(i) A city approved program that utilizes receiving mitigation sites within the city of Sammamish.

(ii) The King County Mitigation Reserves Program, or other approved program that gives priority to sites within the same sub-basin and/or a pre-defined service area that includes the city of Sammamish.

21A.50.320 Wetlands – Development Flexibilities. The following alterations shall be authorized if the City determines that the cumulative impacts do not unduly counteract the purposes of this chapter SMC 21A.50 Environmentally Critical Areas and are mitigated pursuant to an approved mitigation plan.

Deleted: Limited exemption

(1) Isolated wetlands, as designated by a qualified professional in a written and approved critical areas study meeting the requirements of SMC 21A.50.130 and, which includes the use of the adopted Washington State Wetland Rating System for Western Washington, with a total area with an area up to 1,000 square feet may be exempted from the avoidance sequencing provisions of SMC 21A.50.135(1)(a) and the provisions of SMC 21A.50.290.

Deleted: of less

Deleted: than

Deleted: and may be altered by filling or dredging if the City determines that the cumulative impacts do not unduly counteract the purposes of this chapter and are mitigated pursuant to an approved mitigation plan

(2) Isolated category III and IV wetlands, as designated by a qualified professional in a written and approved critical areas study meeting the requirements of SMC 21A.50.130 and, which includes the use of the adopted Washington State Wetland Rating System for Western Washington, with a total area of more than 1,000

square feet and up to 4,000 square feet, may be exempted from the avoidance sequencing provisions of SMC 21A.50.135(1)(a) and the provisions of SMC 21A.50.290 and may be altered, provided:

Deleted: a) The total area of wetland alterations shall be limited to 2,500 square feet; and

(b) A critical areas study is prepared, which includes the use of the adopted Washington State Wetland Rating System for Western Washington, includes a review of the existing functions that the wetland provides, determines how the isolated wetland should be managed for ecological function of the watershed as a whole, and according to the approved critical areas study meets all of the following criteria:

(i) The wetland is not adjacent to a riparian area; and

(ii) The wetland is not part of a wetland mosaic; and

(iii) The wetland does not score 15 points or greater for habitat; and

(iv) The wetland does not contain habitat identified as essential for local populations of priority species identified by Washington Department of Fish and Wildlife; and,

(c) Mitigation to replace lost wetland functions and values, consistent with SMC 21A.50.310 shall be prepared for review and approval by the City.

Commented [EM94]: Item 3-7 & 3-19e

(3) Category III and IV wetlands with a total area of 4,000 square feet or less may have the buffer reduced to 15 feet, provided:

Commented [EM95]: Item 3-19d

(a) The wetland does not score 15 points or greater for habitat in the adopted Western Washington Rating System; and,

(b) The wetland is not part of a wetland mosaic; and,

(c) The buffer functions associated with the area of the reduced buffer width are mitigated through the enhancement of the wetland, the remaining on-site wetland buffer area, and/or other adjoining high value habitat areas as needed to replace lost buffer functions and values; and

(d) No subsequent buffer reduction or averaging is authorized.

21A.50.322 Wetland management area – Special district overlay.

(1) The purpose of the wetland management area special overlay district is to provide a means to designate certain unique and outstanding wetlands when necessary to protect their functions and values from the impacts created from geographic and hydrologic isolation and impervious surface.

(2) The wetland management area special overlay district shall be designated on critical areas maps maintained by the department of community development.

(3) The following development standards shall be applied in addition to all applicable requirements of this chapter to development proposals located within a wetland management area district overlay:

Citizens for Sammamish mark-up

1 (a) All development proposals on properties zoned R-1 in wetland management areas shall have a
2 maximum impervious surface area of eight percent of the gross acreage of the site. Distribution of
3 the allowable impervious area among the platted lots shall be recorded on the face of the plat.
4 Impervious surface of existing streets need not be counted towards the allowable impervious area.
5 The provisions of this section shall not apply to the Sammamish Town Center Study Area as
6 identified in Ordinance O2005-185;

7 (b) All subdivisions and short subdivisions on properties identified in a management area for
8 clustering and set aside requirements in the East Lake Sammamish Basin and Nonpoint Action Plan
9 (1994) shall be required to cluster away from wetlands or the axis of corridors along stream
10 tributaries and identified swales connecting wetlands. At least 50 percent of all portions of the
11 property located within wetland management areas identified for vegetation retention shall be left
12 in native vegetation, preferably forest, and placed in a permanent open space tract. The open space
13 tract shall be designed to maximize the amount of separation between any critical areas and the
14 proposed development. If no critical area tracts are required, the open space tract shall be located
15 to provide additional protection to nearby wetlands;

16 (c) Clearing and grading activity from October 1st through April 30th shall meet the provisions of
17 SMC 16.15.120(4) wherever not already applicable;

18 (d) All R-1 zoned properties within wetland management areas, as identified in the East Lake
19 Sammamish Basin and Nonpoint Action Plan, shall retain native vegetation, or revegetate with trees
20 to meet the following standards:

21 (i) Fifty percent of the site area shall be used to retain trees or revegetate with trees;

22 (ii) Retained vegetation shall be located primarily within the 50 percent open space area
23 required by SMC 21A.25.030;

24 (iii) Retained vegetation shall consist primarily of trees with 0.0096 significant trees per square
25 foot;

26 (iv) Areas revegetated shall provide 0.012 trees per square foot. Planted trees shall meet the
27 following specifications:

28 (A) Coniferous trees shall be at least three feet tall;

29 (B) Deciduous trees shall be at least five feet tall; and

30 (C) Trees shall be planted primarily in the required open space area;

31 (v) The provisions of this section shall not apply to the Sammamish Town Center Study Area as
32 identified in Ordinance O2005-185; and

33 (e) The director may, based upon review and approval of a critical areas special study, modify the
34 provisions of this chapter to allow for:

(i) The installation of site access; provided, that the applicant shall limit impervious surfaces to the minimum required to grant access; or

(ii) Development using low impact development techniques to achieve standards adopted by the City that will demonstrably minimize development impacts consistent with subsections (3)(a) through (c) of this section. (Ord. O2005-193 § 1)

21A.50.325 Fish and wildlife habitat conservation areas – Development standards.

A development proposal that includes a fish and wildlife habitat conservation area or buffer shall meet the following requirements:

(1) When appropriate due to the type of habitat or species present or the project area conditions, the director may require a critical areas study that includes a habitat management plan consistent with the latest guidance from the Department of Fish and Wildlife. If the habitat conservation area is also classified as a stream, lake, pond or a wetland, then the stream, lake, pond or wetland protection standards shall apply and habitat management shall be addressed as part of the stream, lake, pond or wetland review; provided, that the City may impose additional requirements when necessary to provide for protection of the habitat conservation areas consistent with this chapter. (2) The director may require the following site- and proposal-related information with the critical areas study:

(a) Identification of any endangered, threatened, sensitive or candidate species that have a primary association with habitat on or adjacent to the project area, and an assessment of potential project impacts to the species;

(b) A discussion of any federal or state management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;

(c) A discussion of any ongoing management practices that will protect habitat after the project site has been developed, including any proposed monitoring, maintenance, and adaptive management programs;

(d) When appropriate due to the type of habitat or species present or the project area conditions, the director may also require the habitat management plan to include an evaluation by the State Department of Fish and Wildlife, local Native American Indian Tribe, or other qualified professional regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate.

(e) When appropriate, information from the Washington Department of Fish and Wildlife's Fish and Wildlife's Backyard Wildlife Sanctuary Program shall be included.

(3) General Requirements. Habitat conservation areas that are lakes shall be governed by the requirements of the Sammamish Shoreline Master program. Other habitat conservation areas are subject to the following provisions:

Commented [C45-96]: Fish and wildlife conservation areas should be applied only to undeveloped land in which other environmental buffers exist. They should not be imposed retroactively on developed neighborhoods. Current definitions of "development" and "development proposal" do not assure this, nor do provisions in 21A.50.060. These limitation on scope should be spelled out in this section. See discussion Fish and wildlife habitat conservation areas and corridors at the end of this document. (Ref. Exhibit 268)

Deleted: ¶

Deleted: alteration of

Commented [EM97]: Item 2-13

Deleted: ¶

Deleted: and

Commented [Cd598]: Item 2-13c

1 (a) The department shall require the establishment of buffer areas for development activities in, or
2 adjacent to, habitat conservation areas when needed to protect habitat conservation areas. Buffers
3 shall consist of an undisturbed area of native vegetation, or areas identified for restoration, established
4 to protect the integrity and functions of the habitat. Required buffer widths shall consider the
5 management recommendations identified in subsection (2) of this section and reflect the sensitivity of
6 the habitat and the type and intensity of human activity proposed to be conducted nearby. When a
7 species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions
8 may apply. Development activities may be further restricted and buffers may be increased during the
9 specified season.

10 (b) Where applicable, a fish and wildlife habitat corridor required in 21A.50.327.

Commented [Cd599]: Item 2-13c

11 (c) A habitat conservation area may be altered only if the proposed alteration of the habitat or the
12 mitigation proposed does not reduce the quantitative and qualitative functions and values of the
13 habitat, except in accordance with this chapter.

Deleted: b

14 (d) In addition to the provisions of SMC 21A.50.060, removal of any native vegetation or woody debris
15 from the habitat conservation area may be allowed only as part of an approved habitat management
16 plan, critical areas study, and/or alteration plan.

Deleted: R

Commented [C100]: Item 5-3

17 (e) Low impact uses and development activities which are consistent with the purpose and function of
18 the habitat conservation area and do not detract from its integrity may be permitted within the
19 conservation area depending on the sensitivity of the habitat area. Examples of uses and development
20 activities which may be permitted in appropriate cases include trails that are pervious, viewing
21 platforms, storm water management facilities such as grass-lined swales, utility easements and other
22 similar uses and development activities; provided, that any impacts to the habitat resulting from such
23 permitted facilities shall be fully mitigated.

Deleted: c

24 (f) Whenever development activities are proposed in or adjacent to a habitat conservation area with
25 which state or federally endangered or threatened species have a primary association, such area shall
26 be protected through the application of measures in accordance with a critical areas report prepared
27 by a qualified professional and approved by the City of Sammamish, with guidance provided by the
28 appropriate state and/or federal agencies.

Deleted: d

29 (g) Plant, wildlife, or fish species not indigenous to the coastal region of the Pacific Northwest shall not
30 be introduced into habitat conservation areas unless authorized by this chapter and by any required
31 state or federal permit or approval.

Deleted: f

32 (g) Mitigation sites shall be located to achieve contiguous wildlife habitat corridors in accordance with
33 a mitigation plan that is part of an approved critical areas report to minimize the isolating effects of
34 development on habitat areas, so long as mitigation of aquatic habitat is located within the same
35 aquatic ecosystem as the area disturbed.

(h) The director shall condition approvals of development activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary, to minimize or mitigate any potential adverse impacts. Conditions may include, but are not limited to, the following:

- (i) Establishment of buffer zones;
- (ii) Preservation of critically important vegetation;
- (iii) Limitation of public access to the habitat area, including fencing to deter unauthorized access;
- (iv) Seasonal restriction of development activities;
- (v) Establishment of a duration and timetable for periodic review of mitigation activities; and
- (vi) Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

(i) Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic functions, and shall include mitigation for adverse impacts from the proposed development as appropriate. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per-function basis. (Ord. 02005-193 § 1) 21A.50.327 Fish and wildlife habitat corridors. On development proposal sites that contain Type F or Np streams and/or wetlands with a high habitat score greater than or equal to 29, that are also located within 200 feet of an on-site or off-site Type F or Np stream and/or wetland with a high habitat score greater than or equal to 29, a fish and wildlife habitat corridor shall be set aside and protected as follows:

(1) Subdivisions and short subdivisions shall either place the corridor in a contiguous permanent open space tract with all developable lots sited on the remaining portion of the project site, or shall design the lots so that conservation easements on individual lots can form a contiguous easement covering the corridor;

(2) Individual lots shall place the corridor in a conservation easement.

(3) The fish and wildlife habitat corridor shall be sited on the property in order to meet the following conditions:

(a) Forms one contiguous tract that connects on-site high value habitat areas to other on-site or off-site high value habitat areas. (b) New development proposals shall provide a minimum fish and wildlife habitat corridor width of 300 feet or a corridor width that is consistent with an approved habitat management plan;

(c) In addition to the provisions of SMC 21A.50.060, development proposals on sites constrained by a fish and wildlife habitat corridor and where development already exists, shall maintain a minimum fish and wildlife habitat corridor width of 300 feet unless through an approved habitat management plan it can be shown that a lesser habitat corridor width supports and maintains the corridor's function and value;

Citizens for Sammamish mark-up

Deleted: h

Commented [EM101]: Item 2-13

Commented [C45-102]: Fish and wildlife habitat corridors should be applied only to undeveloped land in which other environmental buffers exist. They should not create new buffers nor be imposed retroactively on developed neighborhoods. Current definitions of "development" and "development proposal" do not assure this, nor do provisions in 21A.50.060. These limitation on scope should be spelled out in this section. See discussion Fish and wildlife habitat conservation areas and corridors at the end of this document. (Ref. Exhibit 268)

Deleted: ¶

Deleted: w

Commented [C45-103]: This requirement for corridors to allow the travel of wildlife is to some extent at odds with the requirement to maintain stream buffers in a natural state. In a matter of just a couple years once open areas along streams can become so overgrown with vegetation that passage of larger animals is not possible. (C4S can provide a good example.) If the passage of larger animals is an intended function of corridors along streams, there needs to be some provision for controlling the density of the vegetation in the corridor, and it needs to be reconciled with the hands-off policy reflected in the Streams code. There is currently no such provision in this subsection; indeed, sub-item (5) seems to discourage it. This issue should be addressed in this update. (Ref. Exhibits 235, 268)

Deleted: Habitat

Deleted: fwc corridors

Deleted: as defined in 21A.15.467

Deleted: for preserving connections between habitats along the designated wildlife habitat network

Deleted: (1) Habitat corridors shall be identified and protected in one of the following ways:

Deleted: (a)

Deleted: (b)

Deleted: (2)

Deleted: that enters and exits the property at the points the designated wildlife habitat network crosses the property boundary

Deleted: ¶

Deleted: Maintains a width, wherever possible, of 300 feet. The network width shall not be less than 150 feet wide at any point

Commented [EM104]: Item 2-13

Deleted: and

(d) Be contiguous with and may include critical area tracts, buffers and open space tracts or wooded areas on adjacent properties, if present, and

(e) When a lesser habitat corridor width is permitted by subsection (c) above, the director shall modify corridor widths based on supporting conditions from an approved habitat management plan.

(3) When feasible, the fish and wildlife habitat corridor shall be sited on the property in order to meet the following conditions:

(a) Connect isolated critical areas or habitat; and

(b) Connect with other fish and wildlife habitat corridors, open space tracts or wooded areas on adjacent properties, if present.

(4) A management plan for the wildlife corridor contained within a tract or tracts shall be prepared that specifies the permissible extent of recreation, forestry or other uses compatible with preserving and enhancing the wildlife habitat value of the tract or tracts. The management plan shall be reviewed and approved by the department. The approved management plan for a subdivision shall be contained within and recorded with the covenants, conditions and restrictions (CCRs). If the wildlife corridor is contained in a conservation easement, a management plan is not required, but may be submitted to the department for review and approval, and recorded with the conservation easement.

(5) Clearing within the wildlife corridor contained in a tract or tracts shall be limited to that allowed by the management plan or as otherwise allowed by this chapter. No clearing, including the removal of woody debris, shall be allowed within a wildlife corridor contained within a conservation easement on individual lots, unless the property owner has an approved management plan.

(6) A homeowners' association or other entity capable of long-term maintenance and operation shall be established to monitor and assure compliance with the management plan. The association shall provide homeowners with information on Washington Department of Fish and Wildlife's Backyard Wildlife Sanctuary Program.

(9) Wildlife corridors set aside in tracts or conservation easements shall meet the provisions in SMC 16.15.120.

(10) The permanent open space tract containing the wildlife corridor may be credited toward the other applicable requirements such as surface water management and the recreation space requirement of SMC 21A.30.140, provided the proposed uses within the tract are compatible with preserving and enhancing the wildlife habitat value. Restrictions on other uses within the wildlife corridor tract shall be clearly identified in the management plan.

(11) Low impact uses and activities which are consistent with the purpose and function of the habitat corridor and do not detract from its integrity may be permitted within the corridor depending on the

Citizens for Sammamish mark-up

Deleted: c

Deleted: sensitive

Deleted: and their

Deleted: .

Deleted: T

Commented [C4S-105]: Clarify, and limit unnecessary discretionary influence of Director. (Ref. Exhibit 268)

Deleted: may

Commented [EM106]: Item 2-13

Commented [C4S-107]: Duplicate para. no. (3). (But it appears the intent was to delete this in favor of the (3) above.)

Deleted: (4) The wildlife corridor tract shall be permanently marked consistent with the methods contained in SMC 21A.50.170. Conservation easements are exempt from the permanent marking requirement.

Deleted: 5

Deleted: 5

Commented [CdS108]: Item 5-3

Deleted: 6

Commented [CdS109]: Item 2-13c

Commented [C4S-110]: Presumably this and the following paragraphs should be renumbered.

Deleted: 8

Deleted: 9

Deleted: 0

sensitivity of the habitat area. Examples of uses and activities which may be permitted in appropriate cases include trails that are pervious, viewing platforms, storm water management facilities such as grass-lined swales, utility easements and other similar uses, or activities otherwise described and approved by the Washington Department of Fish and Wildlife, provided, that any impacts to the corridor resulting from such permitted facilities shall be fully mitigated. (12) At the discretion of the director, these standards may be waived or reduced for public facilities such as schools, fire stations, parks, and public road projects. (Ord. 02005-193 § 1)

21A.50.330 Streams – Development standards.

A development proposal on a parcel or parcels containing a stream or associated buffer of a stream located on-site or off-site shall meet the following requirements:

(1) The following standard buffers shall be established from the ordinary high water mark or from the top of the bank if the ordinary high water mark cannot be identified:

Stream Type	Standard Buffer Width (ft)
Type S:	150
Type F:	50
Type Np:	20
Type Ns:	15

(a) Where a legally established and constructed street or the East Lake Sammamish Trail transects a stream buffer, the department may approve a modification of the standard buffer width to the edge of the street or the East Lake Sammamish Trail if the isolated part of the buffer does not provide additional protection of the stream and provides insignificant biological, geological or hydrological buffer functions relating to the stream. If the resulting buffer distance is less than 50 percent of the standard buffer, no further reduction shall be allowed.

(b) Where a buffer has been previously established on a legally created parcel or tract that was legally established according to the regulations in place at the time of establishment, and is permanently recorded on title or placed within a separate tract, the buffer shall remain as previously established, provided it is equal to or greater than 50 percent of the required standard buffer distance for the applicable stream category.

(2) Any stream with an ordinary high water mark within 25 feet of the toe of a slope 30 percent or steeper, but less than 40 percent, shall have:

(a) The minimum buffer required for the stream class involved or a 25-foot buffer beyond the top of the slope, whichever is greater, if the horizontal length of the slope, including small benches and terraces, is within the buffer for that stream class; or

(b) A 25-foot buffer beyond the minimum buffer width required for the stream class involved if the horizontal length of the slope, including small benches and terraces, extends beyond the buffer for that stream class.

Citizens for Sammamish mark-up

Commented [C111]: Item 2-13

Deleted: and activities

Deleted: ¶

Deleted: 1

Commented [C45-112]: This is another case where indiscriminate use of the term "development" is a problem. This section should only apply to new development, not existing neighborhoods, and that should be made clear here. See discussion Clarification of applicability of 21A.50.330 at the end of this document. See also comment on 21A.15.310. (Ref. Exhibits 214, 235, 268)

Commented [C45-113]: A 50-foot buffer will be consistent with the setback from Pine and Beaver lakes. Both lakes and type F streams are candidates for Fish and Wildlife Habitat Conservation Areas according to WAC 365-190-130(2)(g) (Ref. Exhibit 268)

Deleted: 150

Commented [C45-114]: The City's rationale for the 20-foot setback from Lake Sammamish can be found in the City Council packet for June 20, 2011 beginning page 153. <http://www.ci.sammamish.wa.us/files/packet/7959.pdf> (Ref. Exhibit 268)

Deleted: 75

Commented [C45-115]: As described in the City's rationale referenced above, a 15-foot buffer removes 50% of the phosphorus. (Ref. Exhibit 268)

Deleted: 50

Commented [C45-116]: These are not the only man-made features that can define a de facto boundary to a buffer. Driveways, buildings, and solid fences and walls can also. Changes to 21A.50.060 recognize this for buildings, at least in part. There needs to be recognition as well of driveways and other paved surfaces (where they do not allow sheet flow over them toward a stream), walls, and other solid barriers to influence. (Buffer delineation will provide for this.) (Ref. Exhibits 105A, 210, 235, 268)

Commented [C45-117]: This 50 percent constraint is yet another "magic number" that is arbitrary and has no basis in science. If the far side of a barrier is less than 50% of the standard buffer width (which itself is arbitrary), there is no reason to impose a larger buffer. Delete this clause. (Ref. Exhibits 60, 105A, 210, 235, 268)

Deleted: through City or county development review on or after November 27, 1990

Deleted: be

Deleted: at least

Commented [C45-118]: 50% constraint is arbitrary. See previous comment.

Commented [CdS119]: Item 5-9

Deleted:

1 (3) Any stream adjoined by a riparian wetland or other contiguous critical area shall have the buffer required
2 for the stream type involved or the buffer that applies to the wetland or other critical area, whichever is
3 greater.

4 (4) Buffer Averaging. Buffer width averaging may be allowed by the City if:

5 (a) It will provide additional natural resource protection, as long as the total area contained in the
6 buffer on the development proposal site does not decrease (see also SMC 21A.30.210(4) for buffer
7 compensation requirements for trails);

8 (b) The stream contains variations in sensitivity due to existing physical characteristics or the
9 character of the buffer varies in slope, soils, or vegetation, and the stream would benefit from a
10 wider buffer in places and would not be adversely impacted by a narrower buffer in other places;

11 (c) The buffer width is not reduced to less than 50 percent of the standard buffer;

12 (d) The buffer is associated with a development proposal and it will not further encumber a
13 neighboring property not owned by the applicant; and

14 (e) Buffer averaging may be used in conjunction with buffer reduction options in this section,
15 provided the total combined reduction does not reduce the buffer to less than 50 percent of the
16 standard buffer width at any location.

17 (5) Increased Buffers. Increased buffer widths may be required by a distance necessary to protect:

18 (b) Fish and wildlife habitat conservation areas and habitat connections based on an approved habitat
19 management plan as defined by the Department of Fish and Wildlife;

20 (c) Landslide or erosion hazard areas contiguous to streams;

21 (d) Groundwater recharge and discharge area;

22 (e) Or to offset buffer impacts, such as trail and utility corridors; and

23 (f) At risk ecological stream functions including, but not limited to the following:

24 (i) Habitat complexity, connectivity and biological functions;

25 (ii) Seasonal hydrological dynamics as provided in the adopted Surface Water Design Manual;

26 (iii) Sediment removal and erosion control;

27 (iv) Pollutant removal;

28 (v) Large wood debris (LWD) recruitment;

29 (vi) Water temperature;

Commented [C4S-120]: As with (1) (b) above, this 50 percent constraint is arbitrary and has no basis in science. If the true range of influence is less than 50% of the standard buffer width (which itself is arbitrary), there is no reason to impose a larger buffer. Delete this clause. (Ref. Exhibits 60, 105A, 210, 268)

Deleted: and

Deleted: e

Commented [CdS121]: Item 5-11

Deleted: .

Deleted: d

Deleted: ; and

Deleted: .

Deleted: B

Deleted: shall

Deleted: the

Deleted: City when necessary

Deleted: (a) Critical drainage areas; f

Deleted: Critical fish

Deleted: s

Deleted: ,critical drainage areas, critical fish and wildlife habitat,landslide or erosion hazard areas contiguous to streams,

Deleted: and

Deleted: groundwater recharge and discharge area

Deleted: or to offset buffer impacts, such as trail and utility corridors.

(vii) Wildlife habitat; and

(viii) Microclimate.

Commented [CdS122]: Item 2-5

(6) Buffer Reduction. Buffers may be reduced when buffer-reduction impacts are mitigated and result in equal or greater protection of the ecological stream functions as defined in 21A.50.330. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SMC 21A.50.135. A plan for mitigating buffer-reduction impacts must be prepared using selected incentive-based mitigation options from the list below, and is subject to approval by the City. The following incentive options for reducing standard buffer widths shall be considered cumulative up to a maximum reduction of 50 percent of the standard buffer width. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area and shall include a five-year monitoring and maintenance plan.

Commented [CdS123]: Item 2-4

Deleted: :

Deleted: ¶

(a) Up to 20 percent reduction in the standard buffer width may be allowed if water quality is improved in excess of the requirements of the adopted surface water design manual and Title 13 Surface Water Management, through the use of created and/or enhanced wetlands, or ponds supplemental to existing storm drainage and water quality requirements.

Deleted: Installation of biofiltration/infiltration mechanisms: up to 20 percent reduction in standard buffer width for the installation of bioswales,

(b) Removal of existing impervious surfaces:

(i) Up to 10 percent reduction in standard buffer width if impervious surfaces within the to-be-remaining buffer area are reduced by at least 50 percent; or

(ii) Up to 20 percent reduction in standard buffer width if the to-be-remaining buffer area is presently more than 50 percent impervious and all of it is to be removed.

(c) Removal of invasive, nonnative vegetation: up to 10 percent reduction in standard buffer width for the removal and extended (minimum five-year) monitoring and continued-removal maintenance of relatively dense stands of invasive, nonnative vegetation from significant portions of the remaining buffer area:

(d) Restoration, preservation and maintenance of the existing stream and buffer vegetation if the following conditions are present and/or attainable as a result of action:

(i) An undisturbed vegetated buffer is preserved in the remaining buffer width; and,

(ii) Existing buffer conditions are degraded such that more than 40 percent of the buffer is covered by non-native/invasive plant species and are restored according to a city-approved restoration plan to improve wetland buffer functions; and,

(iii) Tree or shrub vegetation covers less than 25 percent of the total buffer area the area will be re-vegetated according to a city-approved restoration plan with trees and shrubs to replace impacted buffer functions; and,

Deleted: :

(iv) The stream buffer has slopes of less than 25 percent.

(v) The buffer reduction determination and percentage shall be on a site by site basis based on the applicant's plan and demonstration of improvement to water quality and habitat functions.

(e) In-stream habitat enhancement:

(i) Up to 20 percent reduction in standard buffer width for log structure placement, bioengineered bank stabilization, or culvert removal; or

(ii) Up to 30 percent reduction in standard buffer width for improving fish passage and/or creation of side channel or backwater areas.

(f) If not already required under an existing development proposal, installation of oil/water separators for storm water quality control: up to 10 percent reduction in standard buffer width.

(g) Use of pervious material for driveway/road construction: up to 10 percent reduction in standard buffer width.

(h) Restoration of on-site buffer and habitat areas, or restoration of off-site buffer and habitat areas within the same sub-basin of the impacted stream if no on-site restoration is possible:

(i) Up to 10 percent reduction in standard buffer width if restoration area is at a 2:1 ratio or greater; or

(ii) Up to 20 percent reduction in standard buffer width if restoration area is at a 4:1 ratio or greater.

(i) Removal of significant refuse or sources of toxic material: up to 10 percent reduction in standard buffer width.

(8) The use of hazardous substances, pesticides and fertilizers in the stream corridor and its buffer may be prohibited by the City.

(9) The introduction of livestock into a stream or stream buffer is prohibited.

(10) In addition to the provisions of SMC 21A.50.060, removal of any native vegetation or woody debris from the stream or stream buffer may be allowed only as part of an approved habitat management plan, critical areas study, and/or alteration plan.

21A.50.340 Streams – Permitted alterations.

Alterations to streams and stream buffers are not allowed except as provided for by complete exemptions, allowances for existing urban development and other uses, and exceptions in this chapter or as allowed for by this section.

Citizens for Sammamish mark-up

Deleted: d

Deleted: e

Deleted: f

Deleted: g

Deleted: h

Commented [C45-124]: Recommended location for new section (7) Buffer Delineation. See text under "Elaboration of comments" at end of this document (Ref. Exhibits 105A, 210, 224, 235, 268)

Deleted: 7

Commented [CdS125]: Item 5-12

Deleted: 8

Deleted: The livestock restrictions in SMC 21A.50.290 shall also apply to Type S and F streams and their buffers. (Ord. 02005-193 § 1; Ord. 02005-172 § 4; Ord. 099-29 § 1)

Deleted: R

Commented [C126]: Item 5-3

Commented [C45-127]: This requirement as applied to stream buffers in developed neighborhoods is overreaching. These plans/study should only be required for actions of significant scale and within viable habitat; they should not apply to maintenance and enhancement of established landscaping regardless of whether the city is going to insist on "development proposals" for that or not.

This problem can be solved by either better defining/limiting what scale of activity requires a "development proposal" or by explicitly excluding normal maintenance and enhancement actions here as discussed in **Clarification of applicability of 21A.50.330** at the end of this document. (Ref. Exhibits 105A, 214, 218, 235, 268)

Deleted: partial exemptions

(1) Alterations may only be permitted if based upon a critical areas study conducted in accordance with SMC 21A.50.130 that determines the proposed development will:

(a) Protect, restore or enhance the habitat, natural drainage, or other valuable functions of the stream resulting in a net improvement to the stream and stream buffer;

(b) Design, implement, maintain and monitor a restoration or enhancement plan prepared by a qualified professional;

(c) Perform the restoration or enhancement under the direction of a qualified professional; and

(d) Will otherwise be consistent with the purposes of this chapter.

(2) The applicant shall notify affected communities and native tribes of proposed alterations prior to any alteration if a stream is in a flood hazard area and shall submit evidence of such notification to the Federal Insurance Administration.

(3) There shall be no introduction of any plant or wildlife which is not indigenous to the coastal region of the Pacific Northwest into any stream or buffer unless required by a state or federal permit or approval or as otherwise allowed by SMC 21A.50.060 – Allowance for Existing Urban Development and Other Uses.

(5) Utilities may be allowed in stream buffers if:

(a) No reasonable alternative location is available;

(b) The utility corridor meets any additional requirements for installation, replacement of vegetation and maintenance, as needed to mitigate impacts;

(c) The requirements for sewer utility corridors in SMC 21A.50.300 shall also apply to streams; and

(d) Joint use of an approved sewer utility corridor by other utilities may be allowed.

(6) Where technically feasible, surface water discharge shall be located outside of the stream and stream buffer. If surface water discharge to a stream or stream buffer is unavoidable, the following management activities and provisions shall apply:

(a) Surface water discharge to a stream from a flow control or water quality treatment facility, sediment pond or other surface water management activity or facility may be allowed if the discharge is in compliance with the applicable City-adopted storm water requirements.

(b) A Type Ns stream buffer may be used as a regional storm water management facility if:

(i) A public agency and utility exception is granted pursuant to SMC 21A.50.070;

(ii) All requirements of the applicable City-adopted storm water requirements are met;

Commented [C4S-128]: This is now at odds with 21A.50.060, which says a CAS is *not* required for revisions to landscaping or removal of non-native vegetation in an area less than 2500sf. The problem is that the broad definition of "Alteration" encompasses such activity when stream buffers are unconditionally considered habitat, as is the case with the current code. This conflict needs to be corrected. (Buffer delineation option would solve this.) (Ref. Exhibits 105A, 210)

Deleted: 34

Commented [C4S-129]: With this revision, this now seems like a rather strange requirement. Are there actions a developer or resident might take that entail a state or federal permit or approval and that *require* the introduction of plants or wildlife into a stream or buffer? That is what this implies. If not, this clause is meaningless and should be deleted. (Ref. Exhibits 235, 268)

Deleted: authorized

Deleted: 4

Deleted: 5

Commented [CdS130]: Item 5-13

Deleted: The following surface water management activities and facilities may be allowed in stream buffers as follows

Deleted: Np or

(iii) The use will not lower the rating or alter the factors used in rating the stream; and

(iv) There are no significant adverse impacts to the stream or habitat.

(7) Except as provided in subsection (7) of this section, public and private trails may be allowed in stream buffers consistent with the standards and requirements in this chapter, the development standards in Chapter 21A.30 SMC, and requirements elsewhere in the SMC. Proposals for constructing viewing platforms, associated access trails, and spur trails must be reviewed by a qualified professional and a critical areas study may be required.

Deleted: 6

(8) Crossings. The use of existing crossings, including but not limited to utility corridors, road and railroad rights-of-way, across streams or buffers for public or private trails is preferred to new crossings, subject to the standards and requirements in the SMC. New stream crossings may be allowed and may encroach on the otherwise required stream buffer if:

Deleted: 7

(a) Bridges, bottomless culverts or other appropriate methods demonstrated to provide fisheries protection shall be used for stream crossings and the applicant shall demonstrate that such methods and their implementation will pose no harm to the stream habitat or inhibit migration of anadromous fish;

(b) All crossings are constructed during the summer low flow and are timed to avoid stream disturbance during periods when use is critical to resident or anadromous fish including salmonids;

(c) Crossings do not occur over spawning areas used by resident or anadromous fish including salmonids unless the City determines that no other reasonable crossing site exists;

(d) Bridge piers or abutments are not placed within the FEMA floodway or the ordinary high water mark;

(e) Crossings do not diminish the flood-carrying capacity of the stream;

(f) Underground utility crossings are laterally drilled and located at a depth of four feet below the maximum depth of scour for the base flood predicted by a civil engineer licensed by the state of Washington. Temporary bore pits to perform such crossings may be permitted within the stream buffer established in SMC 21A.50.330. Crossing of Type Ns streams when dry may be made with open cuts; and

(g) Trail crossings shall use bridges and boardwalks consistent with the design requirements of the Washington Department of Fish and Wildlife [WDFW, 2003, Design of Road Culverts for Fish Passage as amended]; and

Commented [EM131]: Item 2-3

(h) The number of crossings is minimized and consolidated to serve multiple purposes and properties whenever possible.

Deleted: (g)

(9) Relocations. Stream relocations may be allowed only for:

Deleted: 8

(a) Type F, Np, and Ns streams as part of a public road, trail, or park project for which a public agency and utility exception is granted pursuant to SMC 21A.50.050; and

(b) Type F, Np and Ns streams for the purpose of enhancing resources in the stream if:

Commented [EM132]: Item 2-6

(i) Appropriate floodplain protection measures are used; and

(ii) The relocation occurs on-site, except that relocation off-site may be allowed if the applicant demonstrates that any on-site relocation is impracticable, the applicant provides all necessary easements and waivers from affected property owners and the off-site location is in the same drainage sub-basin as the original stream.

(10) For any relocation allowed by this section, the applicant shall demonstrate, based on information provided by qualified professionals, including a civil engineer and a biologist, that:

Deleted: 9

(a) The equivalent base flood storage volume and function will be maintained;

(b) There will be no adverse impact to local groundwater;

(c) There will be no increase in velocity;

(d) There will be no interbasin transfer of water;

(e) There will be no increase in sediment load;

(f) Requirements set out in the mitigation plan are met;

(g) The relocation conforms to other applicable laws; and

(h) All work will be carried out under the direct supervision of a qualified biologist.

(11) A stream channel may be stabilized if:

Deleted: 10

(a) Movement of the stream channel threatens existing residential or commercial structures, public facilities or improvements, unique natural resources or the only existing access to property;

(b) The stabilization is done in compliance with the requirements of SMC 21A.50.230; and

(c) Soft-bank stabilization techniques are utilized unless the applicant demonstrates that soft-bank techniques are not a reasonable alternative due to site-specific soil, geologic and/or hydrologic conditions.

(12) Replacement of existing culverts to enhance stream habitat, not associated with any other development proposal, may be allowed if accomplished according to a plan for its design, implementation, maintenance, and monitoring prepared by qualified professionals, including a civil engineer and a biologist, and carried out under the direction of a qualified biologist.

Deleted: 11

Commented [C4S-133]: How is this distinguished from the provisions of 21A.50.060 (4) above? It appears that by adding that subsection, redundancy has been created, which at the least makes it more difficult to maintain this code. But if there is some basic distinction between the treatment here and above, that should be spelled out. (Ref. Exhibits 235, 268)

(13) Stream and habitat restoration or enhancement may be allowed if:

Deleted: 12

Citizens for Sammamish mark-up

(a) The restoration is sponsored ~~or approved~~ by a public agency with a mandate to do such work;

Commented [CdS134]: Item 5-16

(b) The restoration is unassociated with mitigation of a specific development proposal;

(c) The restoration is limited to placement of rock weirs, log controls, spawning gravel, and other specific habitat improvements for resident or anadromous fish including salmonids;

(d) The restoration only involves the use of hand labor and light equipment; or the use of helicopters and cranes that deliver supplies to the project site; provided, that they have no contact with critical areas or their buffers;

Deleted: and

(e) The restoration is performed under the direction of qualified professionals; and

(f) The restoration is part of a relocation plan consistent with 21A.50.340

Commented [EM135]: Item 2-6

Deleted: .

(14) Roadside ditches that carry streams with salmonids may be maintained through the use of best management practices developed in consultation with relevant City, state, and federal agencies.

Deleted: 13

21A.50.350 Streams – Mitigation requirements.

When mitigation for stream or stream buffer impacts is required, mitigation shall meet the requirements listed in SMC 21A.50.145 in addition to the following supplementary requirements:

Deleted: (1415) Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to City ordinances and regulations may be allowed, provided:¶

(a) If within the buffer, the structure is located no closer to the stream than the existing structure; and¶

(b) The existing impervious surface within the buffer or stream is not expanded as a result of the reconstruction or replacement. (Ord. 02005-193 § 1; Ord. 02005-172 § 4; Ord. 099-29 § 1)

(1) Equivalent or Greater Functions. Mitigation for alterations to stream(s) and/or stream buffer(s) shall achieve equivalent or greater functions including, but not limited to:

(a) Habitat complexity, connectivity, and other biological functions;

(b) Seasonal hydrological dynamics, water storage capacity and water quality; and

(c) Geomorphic and habitat processes and functions.

(2) Mitigation Type and Location. Mitigation actions shall be in-kind and conducted within the same sub-basin and on the same site as the alteration, except when the following apply:

(a) There are no reasonable on-site opportunities for mitigation or on-site opportunities do not have a high likelihood of success due to development pressures, adjacent land uses, or on-site buffers or connectivity are inadequate;

(b) Off-site mitigation has a greater likelihood of providing equal or improved functions than the impacted stream; and

(c) Off-site locations have been identified and evaluated in the following order of preference:

Deleted: shall

(1) Approved fee-in-lieu or mitigation bank program sites within the city limits in accordance with the provisions of this section;

(ii) Approved fee-in-lieu or mitigation bank program sites within the WRIA 8 in accordance with the provisions of this section.

(3) Fee-In-Lieu Stream Mitigation Program. Fee-in-lieu mitigation may be authorized for streams, subject to the avoidance sequence requirements and mitigation measures of this title, and the approval of a program by the city, to be used in the following order of preference:

(a) A city approved program that utilizes receiving mitigationsites within the city of Sammamish.

(b) The King County Mitigation Reserves Program, or other approved program that gives priority to sites within the same sub-basin and/or a pre-defined service area that includes the city of Sammamish.

(3) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities that will disturb streams. In all other cases, mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and flora.

(4) Restoration Required. Restoration shall be required when a stream or its buffer is altered in violation of law, or without any specific permission or approval by the City, where required. A mitigation plan for restoration shall conform to the requirements of this chapter and demonstrate that:

(a) The restoration will reliably and demonstrably improve the water quality and fish and wildlife habitat of the stream;

(b) The restoration will have no lasting significant adverse impact on any stream functions;

(c) On sites where non-native vegetation was cleared, restoration shall include installation of native vegetation with a density equal to or greater than the pre-altered site conditions.

(5) Surface water management or flood control alterations shall not be considered enhancement unless other functions are simultaneously improved. (Ord. 02005-193 § 1; Ord. 02005-172 § 4; Ord. 099-29 § 1)

21A.50.352 Lake Sammamish buffer – Permitted alterations.

Repealed by Ord. 02009-264. (Ord. 02005-193 § 1)

21A.50.355 Lake management areas – Special district overlay.

(1) The purpose of lake management areas is to designate the Beaver Lake and Pine Lake watersheds as special management areas for total phosphorus loading control and to establish standard procedures for evaluating drainage plans and related materials for applications of development within the Beaver Lake and Pine Lake Watersheds (within the East Lake Sammamish drainage basin).

(2) The lake management areas special overlay district shall be designated on critical areas maps maintained by the department of community development.

Citizens for Sammamish mark-up

Deleted: be in the same sub-basin.

Deleted: ¶

Commented [C4S-136]: This added clause is necessary given the extremely broad definition of "alteration" (21A.15.056) which includes all activities except "walking, fishing, or any other passive recreation or other similar activities". With the new 21A.50.060 there are now types of alterations in a buffer that do not (or should not) require "specific permission or approval by the City", e.g., maintenance of or common revisions to landscaping. This clause eliminates the implication that **any** alteration without approval is illegal. (Ref. Exhibits 235, 268)

Deleted: and

Deleted: .

Commented [CdS137]: Item 5-14

Deleted: 21A.50.351 Ponds – Development standards.¶

(1) Naturally Occurring Ponds – New Residence Setback and Tree Retention.¶

(a) A 50-foot building setback for new residences shall be established from the ordinary high water mark (OHWM) for naturally occurring ponds that are not otherwise regulated by the Sammamish shoreline master program.¶

(b) On lots abutting a pond or containing the 50-foot setback area, 25 percent of existing significant trees shall be retained on site. Half of the significant trees to be retained shall be located within the 50-foot building setback area. Where half of the trees to be retained are not present within the setback area, the remaining number may be retained elsewhere on site. (Ord. 02009-264 § 1 (Att. A); Ord. 02005-193 § 1)

Deleted: (3) Definitions. In addition to the definitions listed below, all definitions included in the King County Surface Water Design Manual are hereby adopted by reference.¶

(a) "AKART" means all known, available, and reasonable methods of prevention, control, and treatment.¶

(b) "Eutrophic" means a trophic status characterized by moderately high algal productivity, more serious oxygen depletion in the bottom waters, some recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth of less than two meters, and a winter total phosphorus concentration greater than 20 micrograms/liter.¶

(c) "Hypereutrophic" means a trophic status characterized by high algal productivity, intense algal blooms, fish kills due to oxygen depletion in the bottom waters, frequent recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth generally less than two meters, and a winter total phosphorus concentration greater than 30 micrograms/liter.¶

(d) "Lake management plan" means the plan (and supporting documents as appropriate) describing the lake management recommendations and requirements.¶

(e) "Mesotrophic" means a trophic status characterized by moderate algal productivity, oxygen depletion in the bottom waters, usually no recreational use impairment, summer chlorophyll a concentration averaging four to 10 micrograms/liter, a summer Secchi depth of two to five meters, and a winter total phosphorus concentration ranging from 10 to 20 micrograms/liter.¶

(f) "Oligotrophic" means a trophic status characterized by low algal productivity, algal blooms are rare, water clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration average less than four micrograms/liter, a summer Secchi depth greater than five meters, and a winter total phosphorus concentration ranging from zero to 10 micrograms/liter.¶

... [3]

1 (3) The Beaver Lake watershed as generally identified in the Beaver Lake management plan, which is
2 available at the City of Sammamish community development department, is a sensitive lake and is hereby
3 designated a critical drainage area. This designation is:

Deleted: 4

4 (a) Existing whole-lake total phosphorus concentration for the combined Beaver Lake system is 23
5 micrograms/liter. Beaver Lake 1 and Beaver Lake 2, individually, have whole-lake total phosphorus
6 concentrations of 36 (± 2) micrograms/liter and 20 (± 1) micrograms/liter, respectively;

7 (b) Whole-lake total phosphorus concentration, chlorophyll a, and Secchi depth indicate that the
8 Beaver Lake system is bordering on eutrophic conditions;

9 (c) Modeling of the Beaver Lake system's future trophic status indicates that the lake will become
10 hypereutrophic with a whole-lake total phosphorus concentration predicted to be 36
11 micrograms/liter without additional phosphorus removal via storm water treatment; and

12 (d) Maintaining existing trophic status is a management plan goal. To maintain existing trophic
13 status, an 80 percent total phosphorus annual loading removal goal was established for new
14 impervious surface development prior to storm water discharges to Beaver Lake.

15 (4) The Pine Lake watershed is generally identified in the City of Sammamish comprehensive plan (Figure IV-1
16 in the comprehensive plan or as updated). All appropriate Beaver Lake specific water quality regulations shall
17 be extended to the Pine Lake drainage basin.

Deleted: 5

Deleted: as well

18 (a) These regulations shall only be in effect until such time that a customized Pine Lake water quality
19 strategy is developed and development regulations are adopted based on approved findings of the
20 study.

Deleted: interim

21 (b) An applicant for development within the Pine Lake drainage basin may apply for a variance from
22 the standards specified in subsection (8) of this section if it can be proven that conditions are clearly
23 different than at Beaver Lake.

24 (5) The standards specified in subsection (8) of this section shall apply to all development proposals located
25 within the Beaver Lake and Pine Lake watersheds which require drainage review as specified in the adopted
26 surface water design manual and Title 13 Surface Water Management.

Deleted: 6

Deleted: King County Surface Water Design Manual

27 (6) Development proposals within the Beaver Lake or Pine Lake watersheds may be exempt from
28 management plan requirements if they demonstrate to the satisfaction of the community development
29 department that on-site surface and storm water runoff drainage does not in fact drain into the basin in
30 question.

Deleted: 7

31 (7) Phosphorus Control Required.

Deleted: 8

Deleted: Phosphorous

32 (a) Applicability. Unless the conditions identified in subsection (6) of this section are documented to
33 the satisfaction of the department, the following development proposals are subject to the
34 conditions and standards contained subsections 7(b) through 7(d) below:

Commented [EM140]: Item 3-12

(i) Projects that create greater than 5,000 square feet of new impervious surface subject to vehicular use in the Beaver Lake or Pine Lake watersheds; or

(ii) Projects that create greater than one acre of pollution generating pervious surface, as defined in the adopted surface water design manual and Title 13 Surface Water Management, in the Beaver Lake or Pine Lake watersheds.

(b) The proposed storm water facilities shall be designed to remove 80 percent of all new total phosphorus loading on an annual basis due to new development (and associated storm water discharges) in the Beaver Lake or Pine Lake watersheds where feasible or utilize AKART if infeasible.

(c) The AKART standard or best management practices for phosphorus-sensitive lakes can be fulfilled by achieving the 50% phosphorous removal standard from the adopted surface water design manual and Title 13 Surface Water Management, together with additional applicant proposed measures:

(i) For all development proposals subject to this section, the applicant shall demonstrate that a reduction of 80% total phosphorous is achievable through the use of engineering design computations.

(ii) As the adopted King County Surface Water Design Manual is updated and additional treatment options and designs for total phosphorus removal become available, new treatment systems may be approved by the city if the AKART standard for phosphorus removal can be demonstrated using the Department of Ecology's Technology Assessment Protocol – Ecology (TAPE protocol).

(iii) Where soils are suitable, on-site infiltration of storm water runoff can be pursued through the variance process as an AKART alternative using methods described in the manual, as well as providing an organic soil layer consistent with the standards of the adopted surface water design manual and Title 13 Surface Water Management.

(iv) Development proposals using on-site infiltration, that do not comply with subsection 7(c)(iii), shall demonstrate that 80%, or better, phosphorus treatment can be expected with the designed on-site infiltration system, rather than by methods described in subsection (7)(c)(iii) of this section.

(d) Hydrologic analysis shall be determined using a continuous hydrologic model such as the Hydrologic Simulation Program – Fortran (HSPF) or the King County Runoff Time Series Program (KCRTS) methodology. These methodologies may be revised or superseded by other methodologies for achieving the same performance goal as stipulated by future revision to the Surface Water Design Manual. (Ord. O2005-193 § 1)

Deleted: the following storm water treatment design criteria:¶

(I) A wetpond or combined detention/wetpond with a permanent pool volume equal to four and one-half times the volume of runoff from the mean annual storm (VB/VR=4.5).¶
(A) Mandatory roof downspout infiltration, unless shown to be infeasible, and maximization of forest or native vegetation retention.¶

(B) Pond volume can be reduced by maximizing forest retention according to the following schedule:¶

Forest (%)

... [4]

Deleted: For p

Deleted: which

Deleted: , the following conditions shall apply, unless the conditions identified in subsection (5) of this section are documented to the satisfaction of the community development department:

Commented [EM141]: Item 3-12

Deleted: a

Deleted: b

Deleted: Currently t

Deleted: interim

Commented [EM143]: Item 3-14

Commented [EM144]: Item 3-13

Deleted: c

Deleted: ,

Deleted: , the Santa Barbara Urban Hydrograph, or the VB/VR

Deleted: 21A.50.360 Critical areas mitigation fee – Creation of fund.¶

There is hereby created a critical areas mitigation fund. This fund shall be administered by the City's finance director. (Ord. O2005-193 § 1; Ord. O99-29 § 1)¶

21A.50.370 Critical areas mitigation fee – Source of funds.¶

All monies received from penalties resulting from the violation of rules and laws regulating development and activities within critical areas shall be deposited into the fund. (Ord. O2005-193 § 1; Ord. O99-29 § 1)¶

21A.50.380 Critical areas mitigation fee – Use of funds.¶

Monies from the fund shall only be used for paying the cost of enforcing and implementing critical area laws and rules. (Ord. O2005-193 § 1; Ord. O99-29 § 1)¶

21A.50.390 Critical areas mitigation fee – Investment of funds.¶

Monies in the fund not needed for immediate expenditure shall be deposited in a separate investment fund pursuant to RCW 36.29.020. The finance director shall be designated as the investment fund director. (Ord. O2005-193 § 1; Ord. O99-29 § 1)¶

Deleted: 21A.50.400 Sunset provisions.¶

The provisions contained in SMC 21A.50.290, Wetlands – Development standards, 21A.50.310(6)(a), wetland mitigation ratios, and 21A.50.330, Streams – Development standards, shall revert to those in effect prior to January 3, 2006, 84 months following the January 3, 2006, effective date of the ordinance codified in this chapter unless renewed or revised. (Ord. O2011-315 § 1; Ord. O2009-274 § 1 (Att. A); Ord. O2005-193 § 1)

Chapter 21A.15
TECHNICAL TERMS AND LAND USE DEFINITIONS

Please Note: The city has selected relevant definitions from the definitions section; for brevity, not all definitions are included here. The complete code is available at:
<http://www.codepublishing.com/wa/sammamish/>

21A.15.050 AKART.

"AKART" means all known, available, and reasonable methods of prevention, control, and treatment.

Commented [CdS145]: Item 5-18

21A.15.056 Alteration.

Any human activity that results or is likely to result in an impact upon the existing condition of a critical area is an "alteration" that is subject to specific limitations as specified for each critical area. Alterations include, but are not limited to, grading, filling, dredging, draining, channelizing, applying herbicides or pesticides or any hazardous substance, discharging pollutants, except storm water, grazing domestic animals, paving, constructing, applying gravel, modifying for surface water management purposes, cutting, topping, relocating or removing vegetation or any other human activity that results or is likely to result in an impact to existent vegetation, hydrology, fish or wildlife, or fish or wildlife habitat. Alterations do not include walking, fishing, or any other passive recreation or other similar activities, ~~for the care and maintenance of existing~~ improvements. (Ord. O2005-193 § 2; Ord. O2005-172 § 2; Ord. O99-29 § 1. Formerly 21A.50.200)

Deleted: pruning.

Deleted: trimming.

Commented [C45-146]: Reduces conflict between Sections 21A.50.300 and .340 and Section 21A.50.060.

21A.15.062 Anadromous fish.

"Anadromous fish" are those that live part or the majority of their lives in saltwater, but return to freshwater to spawn. (Ord. O2005-172 § 2)

21A.15.080 Base flood.

"Base flood" means a flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the "100-year flood." (Ord. O2003-132 § 10)

21A.15.085 Base flood elevation.

"Base flood elevation" means the water surface elevation of the base flood in relation to the National Geodetic Vertical Datum of 1929. (Ord. O2003-132 § 10)

21A.15.098 Best available science.

"Best available science" means the process used and information developed consistent with requirements in RCW 36.70A.172 and WAC 365-195-900 through 365-195-925. (Ord. O2005-172 § 2)

21A.15.110 Biologist.

"Biologist" means a person who has earned at least a Bachelor of Science degree in the biological sciences from an accredited college or university or who has equivalent educational training and experience. (Ord. O2003-132 § 10)

21A.15.122 Buffer.

"Buffer" means a designated area contiguous to a steep slope or landslide hazard area intended to protect slope stability, attenuation of surface water flows and landslide hazards, or a designated area contiguous to a

Citizens for Sammamish mark-up

1 habitat conservation area, stream or wetland intended to protect the habitat, stream or wetland and be an
2 integral part of the habitat, stream or wetland ecosystem. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

3 **21A.15.195 Clearing.**

4 "Clearing" means the limbing, pruning, trimming, topping, cutting or removal of vegetation or other organic
5 plant matter by physical, mechanical, chemical or other means. (Ord. O2003-132 § 10)

6 **21A.15.253 Critical aquifer recharge area.**

7 "Critical aquifer recharge areas" means those areas in the City of Sammamish with a critical recharging effect
8 on aquifers used for potable water as defined by WAC 365-190-030(2). CARAs have prevailing geologic
9 conditions associated with infiltration rates that create a high potential for contamination of groundwater
10 resources or contribute significantly to the replenishment of groundwater. CARAs shall be classified based on
11 the following criteria:

12 (1) Class 1 CARAs include those areas located within the mapped one- or five-year capture zone of a
13 wellhead protection area.

14 (2) Class 2 CARAs include those areas located within the mapped 10-year capture zone of a wellhead
15 protection area.

16 (3) Class 3 CARAs include those areas outside wellhead protection areas that are identified as high aquifer
17 recharge potential areas based on characteristics of surficial geology and soil types. (Ord. O2005-193 § 2)

18 **21A.15.254 Critical areas.**

19 "Critical areas" means those areas in the City that are erosion hazard areas, frequently flooded areas,
20 landslide hazard areas, seismic hazard areas, critical aquifer recharge areas, wetlands, streams, and fish and
21 wildlife habitat conservation areas. (Ord. O2005-193 § 2)

22 **21A.15.255 Critical drainage area.**

23 "Critical drainage area" means an area that has been formally determined by the King County surface water
24 management department to require more restrictive regulation than countywide standards afford in order to
25 mitigate severe flooding, drainage, erosion, or sedimentation problems that result from the cumulative impacts
26 of development and urbanization. (Ord. O2003-132 § 10)

27 **21A.15.XXX Development.** "Development" means the construction or exterior expansion of structures or
28 buildings; clearing or grading; paving, landscaping, placing of obstructions; any project of a permanent or
29 temporary nature exterior to a building.

30 **21A.15.310 Development proposal.**

31 "Development proposal" means any activities requiring a permit or other approval from the City of Sammamish
32 relative to the use or development of land. (Ord. O2003-132 § 10)

33 **21A.15.365 Dwelling unit, single detached.**

34 "Dwelling unit, single detached" means a detached building containing one dwelling unit. (Ord. O2003-132 §
35 10)

Commented [C4S-147]: This definition is overgeneral. E.g., pruning is a "project of a temporary nature exterior to a building" and thus would be subject to the requirements elsewhere in this code that "development" be approved via a development proposal submitted to the city. That is unreasonable for common yard maintenance activities like pruning. The definitions of "development" and "maintenance" need to be reworked to more clearly distinguish the two. (Ref. Exhibits 105A, 214, 235, 268)

Commented [EM148]: Item 4-15

Commented [C4S-149]: There are numerous references to "development proposal" in the ECA code, but nowhere is it stated what conditions or nature of project require one. For example, does placing a portable tool shed in a stream buffer require one? That seems excessive, but since it constitutes "modification of a buffer" it is therefore currently subject to a critical areas study per 21A.50.120. A threshold for actions needs to be defined below which a development proposal is not required. (Ref Exhibits 105A, 268)

1 **21A.15.400 Enhancement.**

2 "Enhancement" means an action that increases the functions and values of a stream, wetland, or other
3 sensitive area or buffer. (Ord. O2003-132 § 10)

4 **21A.15.410 Erosion.**

5 "Erosion" means the process by which soil particles are mobilized and transported by natural agents such as
6 wind, rainsplash, frost action or surface water flow. (Ord. O2003-132 § 10)

7 **21A.15.415 Erosion hazard areas.**

8 "Erosion hazard areas" means those areas in the City underlain by soils that are subject to severe erosion
9 when disturbed. Such soils include, but are not limited to, those classified as having a severe or very severe
10 erosion hazard according to the USDA Soil Conservation Service, the 1973 King County Soils Survey or any
11 subsequent revisions or addition by or to these sources. These soils include the following when they occur on
12 slopes 15 percent or steeper:

- 13 (1) The Alderwood gravelly sandy loam (AgD);
- 14 (2) The Alderwood and Kitsap soils (AkF);
- 15 (3) The Beausite gravelly sandy loam (BeD and BeF);
- 16 (4) The Everett gravelly sandy loam (EvD);
- 17 (5) The Kitsap silt loam (KpD);
- 18 (6) The Oval gravelly loam (OvD and OvF);
- 19 (7) The Ragnar fine sandy loam (RaD); and
- 20 (8) The Ragnar-Indianola Association (RdE). (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

21 **21A.15.4XX Erosion Hazard Near Sensitive Water Body Overlay.** The Erosion Hazard Near Sensitive
22 Water Body overlay means an area within the city where sloped areas posing erosion hazards, or
23 contributing to erosion hazards, that drain directly to lakes or streams of high resource value that are
24 particularly sensitive to the impacts of increased erosion and the resulting sediment loads from
25 development. The department of community development shall maintain a map of the boundaries of the
26 erosion hazard near sensitive water bodies overlay district.

Commented [EM150]: Item 4-15

27
28 The Erosion Hazard Near Sensitive Water Body overlay is divided into two areas:

- 29 (a) The no-disturbance area. The no-disturbance area shall be established on the sloped portion of the
30 special district overlay to prevent damage from erosion. The upslope boundary of the no-disturbance
31 area lies at the first obvious break in slope from the upland plateau over onto the valley walls. For
32 the purposes of locating the first obvious break in slope, the first obvious break shall generally be
33 located at the top of the erosion hazard area associated with the slope. The downslope boundary of
34 the no-disturbance area is the extent of those areas designated as erosion or landslide hazard areas.
35 The department shall maintain maps, supported by LIDAR (Light Detection and Ranging) data or
36 other suitable technology, of the approximate location of the no-disturbance areas, which shall be
37 subject to field verification for new development proposals.

Commented [EM151]: Item 4-3

(b) Properties draining to the no-disturbance area. Properties draining to the no-disturbance area are within the Erosion Hazard near Sensitive Water body overlay that drain to the no-disturbance area.

21A.15.420 Eutrophic.

"Eutrophic" means a trophic status characterized by moderately high algal productivity, more serious oxygen depletion in the bottom waters, some recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth of less than two meters, and a winter total phosphorus concentration greater than 20 micrograms/liter. **21A.15.XXX Feasible.**

"Feasible" means that an action, such as a development project, mitigation, or preservation requirement, meets all of the following conditions:

- (a) The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;
- (b) The action provides a reasonable likelihood of achieving its intended purpose; and
- (c) The action does not physically preclude achieving the project's primary intended legal use. In cases where these guidelines require certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant. In determining an action's infeasibility, the reviewing agency may weigh the action's relative public costs and public benefits, considered in the short- and long-term time frames.

21A.15.467 Fish and wildlife habitat corridors.

"Fish and wildlife habitat corridors" means those corridors set aside and protected for preserving connections between habitats on development proposal sites that contain Type F or Np streams and/or wetlands with a high habitat score greater than or equal to 29 on the Washington State Wetland Rating System for Western Washington (Department of Ecology 2004 or as revised) that are located within 200 feet of an on-site or off-site Type F or Np stream and/or wetland with a high habitat score greater than or equal to 29 on the Washington State Wetland Rating System for Western Washington.

21A.15.468 Fish and wildlife habitat conservation areas.

"Fish and wildlife habitat conservation areas" means those areas that are essential for the preservation of critical habitat and species. All areas within the City of Sammamish meeting one or more of the following criteria are designated wildlife habitat conservation areas:

(1) Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association.

(a) Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or are threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted as necessary for current listing status;

(b) State-designated endangered, threatened, and sensitive species are those fish and wildlife species native to the coastal region of the Pacific Northwest identified by the State Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State-designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species), and WAC

Commented [CdS152]: Item 5-18

Deleted: ¶

Commented [C4S-153]: This 200 ft width exceeds the maximum (150 ft) for the most protected category of stream, creating an even larger swath (400 ft) of restricted land use even in developed neighborhoods. This is not addressed in the Evaluation Form for 2-13, and C4S does not believe this was the intent of the Planning Commission. The corridor width should not exceed the buffer width for the category of stream or wetland present. See discussion Fish and wildlife habitat conservation areas and corridors at the end of this document.

Commented [CdS154]: Item 2-13

232-12-011 (state threatened and sensitive species). The State Department of Fish and Wildlife maintains the most current listing and should be consulted as necessary for current listing status;

(2) Streams and lakes;

Deleted: ;

Deleted: and naturally occurring ponds

(3) State natural area preserves and natural resource conservation areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the State Department of Natural Resources; and

(4) Fish and wildlife habitat corridors as defined in 21A.15.467.

Commented [EM155]: Item 2-13

Deleted: W

Deleted: for preserving connections between habitats along the designated wildlife habitat network. (Ord. O2005-193 § 2)

21A.15.470 Flood fringe.

"Flood fringe" means that portion of the floodplain outside of the zero-rise floodway that is covered by floodwaters during the base flood, generally associated with standing water rather than rapidly flowing water. (Ord. O2003-132 § 10)

21A.15.475 Flood hazard areas.

"Flood hazard areas" means those areas in the City of Sammamish subject to inundation by the base flood and those areas subject to risk from channel relocation or stream meander including, but not limited to, streams, lakes, wetlands, and closed depressions. (Ord. O2003-132 § 10)

21A.15.480 Flood insurance rate map.

"Flood insurance rate map" means the official map on which the Federal Insurance Administration has delineated some areas of flood hazard. (Ord. O2003-132 § 10)

21A.15.485 Flood insurance study for King County.

"Flood insurance study for King County" means the official report provided by the Federal Insurance Administration that includes flood profiles and the flood insurance rate map. (Ord. O2003-132 § 10)

21A.15.490 Flood protection elevation.

"Flood protection elevation" means an elevation that is one foot above the base flood elevation. (Ord. O2003-132 § 10)

21A.15.495 Floodplain.

"Floodplain" means the total area subject to inundation by the base flood. (Ord. O2003-132 § 10)

21A.15.500 Floodproofing.

"Floodproofing" means adaptations that will make a structure that is below the flood protection elevation substantially impermeable to the passage of water and resistant to hydrostatic and hydrodynamic loads including the impacts of buoyancy. (Ord. O2003-132 § 10)

21A.15.505 Floodway, zero-rise.

"Floodway, zero-rise" means the channel of a stream and that portion of the adjoining floodplain which is necessary to contain and discharge the base flood flow without any measurable increase in flood height. A measurable increase in base flood height means a calculated upward rise in the base flood elevation, equal to or greater than .01 foot, resulting from a comparison of existing conditions and changed conditions directly

attributable to development in the floodplain. This definition is broader than that of the FEMA floodway, but always includes the FEMA floodway. The boundaries of the 100-year floodplain, as shown on the flood insurance study for King County, are considered the boundaries of the zero-rise floodway unless otherwise delineated by a sensitive area special study. (Ord. O2003-132 § 10)

21A.15.532 Frequently flooded areas.

"Frequently flooded areas" means those lands in the City in the floodplain subject to a one percent or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance, and attenuation functions, as determined by the City in accordance with WAC 365-190-080(3). Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property. Frequently flooded areas include all areas of special flood hazards within the jurisdiction of the City of Sammamish. (Ord. O2005-193 § 2)

21A.15.545 Geologist.

"Geologist" means a professional who holds a current geologist license from the Washington state Geologist Licensing Board.

Commented [CdS156]: Item 4-14

Deleted: geologist

Commented [CdS157]: Item 4-13

Deleted: means a person who has earned at least a Bachelor of Science degree in the geological sciences from an accredited college or university or who has equivalent educational training and at least four years of professional experience. (Ord. O2003-132 § 10)

21A.15.550 Geotechnical engineer.

"Geotechnical engineer" means a practicing geotechnical/civil engineer licensed as a professional civil engineer by the state of Washington who has at least four years of professional employment as a geotechnical engineer. (Ord. O2003-132 § 10)

21A.15.575 Hypereutrophic.

"Hypereutrophic" means a trophic status characterized by high algal productivity, intense algal blooms, fish kills due to oxygen depletion in the bottom waters, frequent recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth generally less than two meters, and a winter total phosphorus concentration greater than 30 micrograms/liter.

Commented [CdS158]: Item 5-18

21A.15.620 Lake Management Plan.

"Lake management plan" means the plan (and supporting documents as appropriate) describing the lake management recommendations and requirements.

Commented [CdS159]: Item 5-18

21A.15.670 Landscaping.

"Landscaping" means live vegetative materials required for a development. Said materials provided along the boundaries of a development site are referred to as perimeter landscaping. (Ord. O2003-132 § 10)

Deleted: ¶

21A.15.675 Landslide.

"Landslide" means episodic downslope movement of a mass including, but not limited to, soil, rock or snow. (Ord. O2003-132 § 10)

21A.15.680 Landslide hazard areas.

"Landslide hazard areas" means those areas in the City of Sammamish potentially subject to risk of mass movement due to a combination of geologic, topographic, and hydrologic factors. These areas are typically susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope aspect, geologic structure, groundwater, or other factors. Landslide hazard areas include the following:

(1) Areas of historic failures, such as:

Citizens for Sammamish mark-up

(a) Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "severe" limitation for building site development;

(b) Areas designated as quaternary slumps, earthflows, mudflows, or landslides on maps published by the U.S. Geological Survey or Department of Natural Resources;

(2) Areas that have shown movement during the Holocene epoch, from 10,000 years ago to the present, or which are underlain by mass wastage debris from that epoch;

(3) Any area with all three of the following characteristics:

(a) Slopes steeper than 15 percent; and

(b) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and

(c) Springs or groundwater seepage;

(4) Areas with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top, as defined in SMC 21A.15.1230, and measured by averaging the inclination over at least 10 feet of vertical relief;

Commented [CdS160]: Item 4-12

(5) Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;

(6) Slopes having gradients steeper than 80 percent subject to rock fall during seismic shaking;

(7) Areas potentially unstable because of rapid stream incision, stream bank erosion or undercutting by wave action; and

(8) Landslide hazard areas do not include those areas composed of slopes greater than 40 percent that were created from a previously non-landslide hazard area through legal grading activity and that are confirmed to be stable by a qualified professional. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

21A.15.XXX Maintenance. "Maintenance" means those usual acts to prevent a decline, lapse or cessation from a lawfully established condition or use. Maintenance may include, but is not limited to, pruning, plant material replaced with alternate plant material, hardscape replaced with alternate hardscape, hardscape replaced with plant material.

Commented [EM161]: Item 2-14

21A.15.720 Mesotrophic.

"Mesotrophic" means a trophic status characterized by moderate algal productivity, oxygen depletion in the bottom waters, usually no recreational use impairment, summer chlorophyll a concentration averaging four to 10 micrograms/liter, a summer Secchi depth of two to five meters, and a winter total phosphorus concentration ranging from 10 to 20 micrograms/liter. **21A.15.XXX Microclimate.** "Microclimate" means a climatic condition in a relatively small area, within a few feet above and below the Earth's surface and within canopies of vegetation. Microclimates are affected by such factors as temperature, humidity, wind and turbulence, dew, frost, heat balance, evaporation, the nature of the soil and vegetation, the local topography, latitude, elevation.

Commented [CdS162]: Item 5-18

Deleted: ¶

Citizens for Sammamish mark-up

1 and season. Weather and climate are sometimes influenced by microclimatic conditions, especially by
2 variations in surface characteristics.

3 **21A.15.751 Mitigation bank.**

4 "Mitigation bank" means a property that has been protected in perpetuity, and approved by appropriate City,
5 state, and federal agencies expressly for the purpose of providing compensatory mitigation in advance of
6 authorized impacts through restoration, creation, and/or enhancement of wetlands, and in exceptional
7 circumstances, preservation of adjacent wetlands, wetland buffers, and/or other aquatic resources. (Ord.
8 O2003-132 § 10)

9 **21A.15.752 Mitigation banking.**

10 "Mitigation banking" means a system for providing compensatory mitigation in advance of authorized wetland
11 impacts of development in the City in which credits are generated through restoration, creation, and/or
12 enhancement of wetlands, and in exceptional circumstances, preservation of adjacent wetlands, wetland
13 buffers, and/or other aquatic resources. (Ord. O2003-132 § 10)

14 **21A.15.765 Monitoring.**

15 "Monitoring" means evaluating the impacts of development proposals on biologic, hydrologic, and geologic
16 systems and assessing the performance of required mitigation through the collection and analysis of data for
17 the purpose of understanding and documenting changes in natural ecosystems, functions and features
18 including, but not limited to, gathering baseline data. (Ord. O2003-132 § 10)

19 **21A.15.790 Native vegetation.**

20 "Native vegetation" means vegetation comprised of plant species, other than noxious weeds, which are
21 indigenous to the coastal region of the Pacific Northwest and that reasonably could have been expected to
22 naturally occur on the site. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

24 **21A.15.810 Oligotrophic.**

25 "Oligotrophic" means a trophic status characterized by low algal productivity, algal blooms are rare, water
26 clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration average less than four
27 micrograms/liter, a summer Secchi depth greater than five meters, and a winter total phosphorus
28 concentration ranging from zero to 10 micrograms/liter. **21A.15.825 Ordinary high water mark.**

29 "Ordinary high water mark" means the mark found by examining the bed and banks of a stream, lake, or tidal
30 water and ascertaining where the presence and action of waters are so common and long maintained in
31 ordinary years as to mark upon the soil a vegetative character distinct from that of the abutting upland. In any
32 area where the ordinary high water mark cannot be found, the line of mean high water shall substitute. In any
33 area where neither can be found, the top of the channel bank shall substitute. In braided channels and alluvial
34 fans, the ordinary high water mark or line of mean high water shall be measured so as to include the entire
35 stream feature. (Ord. O2003-132 § 10)

36 **21A.15.850 Phosphorus.**

Deleted: 21A.15.794 Naturalized

Deleted: species.¶

"Naturalized species" means non-native species of vegetation that are adaptable to the climatic conditions of the coastal region of the Pacific Northwest. (Ord. O2011-300 § 1 (Att. A); Ord. O2003-132 § 10. Formerly 21A.15.795)¶

Deleted: 21A.15.795 Naturally occurring ponds.¶

See "Ponds, naturally occurring," SMC 21A.15.898. (Ord. O2011-300 § 1 (Att. A); Ord. O2005-193 § 2. Formerly 21A.15.796)

Commented [CdS165]: Item 5-18

Deleted: ¶

Commented [CdS166]: Item 5-18

Deleted: for the purposes of this section

Deleted: ¶

Commented [CdS167]: Item 5-18

Commented [CdS168]: Item 5-18

Deleted: 21A.15.898 Ponds, naturally

Deleted: occurring.¶

"Ponds, naturally occurring" means those surface water bodies under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those manmade ponds intentionally created in order to mitigate critical area impacts. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites for other reasons such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation. (Ord. O2005-193 § 2¶)

Commented [EM170]: Item 3-19c

1 "Phosphorus" means elemental phosphorus and shall be measured as total phosphorus. 21A.15.855

2 Phosphorus concentration.

3 "Phosphorus concentration" means the mass of phosphorus per liquid volume.

4 21A.15.860 Phosphorus loading.

5 "Phosphorus loading" means the total mass of phosphorus per time basis.

6 21A.15.942 Qualified professional.

7 "Qualified professional" means a person with experience and training in the applicable field or critical area. A
8 qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering,
9 environmental studies, fisheries, geomorphology or a related field, and two years of related work experience.

10 (1) A qualified professional for watercourses, wetlands, and wildlife habitat conservation areas must have a
11 degree in biology or a related field and relevant professional experience.

12 (2) A qualified professional for preparing geotechnical reports and geotechnical design recommendations must
13 be a professional geotechnical engineer or geologist licensed in the state of Washington. Identification of
14 geologic hazards may be performed by geologists or other geology professionals with experience identifying
15 geologic hazards.

16 (3) A qualified professional for preparing critical aquifer recharge reports must be a professional
17 hydrogeologist or geologist licensed in the state of Washington.

18 21A.15.1000 Restoration.

19 "Restoration" means returning a stream, wetland, other sensitive area or any associated buffer to a state in
20 which its stability and functions approach its unaltered state as closely as possible. (Ord. O2003-132 § 10)

21 21A.15.XXXX Riparian.

22 "Riparian" means the area adjacent to flowing or standing freshwater aquatic systems. Riparian habitat
23 encompasses the area beginning at the ordinary high water mark and extends to that portion of the terrestrial
24 landscape that is influenced by, or that directly influences, the aquatic ecosystem. In riparian systems, the
25 vegetation, water tables, soils, microclimate, and wildlife inhabitants of terrestrial ecosystems are often
26 influenced by perennial or intermittent water. Simultaneously, adjacent vegetation, nutrient and sediment
27 loading, terrestrial wildlife, as well as organic and inorganic debris influence the biological and physical
28 properties of the aquatic ecosystem. Riparian habitat includes the entire extent of the floodplain and riparian
29 areas of wetlands that are directly connected to stream courses or other freshwater.

30 21A.15.1015 Salmonid.

31 "Salmonid" means a member of the fish family Salmonidae, including:

32 (1) Chinook, coho, chum, sockeye and pink salmon;

33 (2) Rainbow, steelhead and cutthroat salmon;

34 (3) Brown trout;

Citizens for Sammamish mark-up

- 1 (4) Brook and dolly varden char;
2 (5) Kokanee; and
3 (6) Whitefish. (Ord. O2003-132 § 10)

4 **21A.15.1045 Seismic hazard areas.**

5 "Seismic hazard areas" means ~~those areas mapped as moderate to high and high liquefaction susceptibility~~
6 ~~and peat deposits on the Liquefaction Susceptibility Map of King County, Washington, Washington Division of~~
7 ~~Geology and Earth Sciences, OFR 2004-20, Palmer et al., September, 2004 as revised~~ **21A.15.1070 Setback.**
8 "Setback" means the minimum required distance between a structure and a specified line such as a lot,
9 easement or buffer line that is required to remain free of structures. (Ord. O2003-132 § 10)

Commented [EM171]: Item 1-4

Deleted: those areas in the City subject to severe risk of earthquake damage as a result of soil liquefaction in areas underlain by cohesionless soils of low density and usually in association with a shallow groundwater table or of other seismically induced settlement. (Ord. O2003-132 § 10)

10 **21A.15.1230 Steep slope hazard areas.**

11 "Steep slope hazard areas" means those landslide hazard areas in the City on slopes 40 percent or steeper
12 within a vertical elevation change of at least 10 feet. A slope is delineated by establishing its toe and top and is
13 measured by averaging the inclination over at least 10 feet of vertical relief. For the purpose of this definition:

14 (1) The toe of a slope is a distinct topographic break in slope that separates slopes inclined at less than 40
15 percent from slopes 40 percent or steeper. Where no distinct break exists, the toe of a steep slope is the
16 lowermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal
17 distance of 25 feet; and

18 (2) The top of a slope is a distinct, topographic break in slope that separates slopes inclined at less than 40
19 percent from slopes 40 percent or steeper. Where no distinct break exists, the top of a steep slope is the
20 uppermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal
21 distance of 25 feet. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

22 **21A.15.1235 Stream functions.**

23 "Stream functions" means natural processes performed by streams including functions that are important in
24 facilitating food chain production, providing habitat for nesting, rearing, and resting sites for aquatic, terrestrial,
25 and avian species, maintaining the availability and quality of water, such as purifying water, acting as recharge
26 and discharge areas for groundwater aquifers, moderating surface and storm water flows and maintaining the
27 free flowing conveyance of water, sediments, and other organic matter. (Ord. O2003-132 § 10)

Deleted: (3) A distinct topographic break occurs when the change in gradient is less than 5 feet vertically within a horizontal distance of 25 feet.

28 **21A.15.1240 Streams.**

29 "Streams" means those areas in the City where surface waters produce a defined channel or bed, not
30 including irrigation ditches, canals, storm or storm water runoff conveyance devices or other entirely artificial
31 watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to
32 construction of such watercourses. For the purpose of this definition, a defined channel or bed is an area that
33 demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels,
34 gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-
35 round. For the purpose of defining the following categories of streams, normal rainfall is rainfall that is at or
36 near the mean of the accumulated annual rainfall record, based upon the water year for King County as
37 recorded at the Seattle-Tacoma International Airport.

Citizens for Sammamish mark-up

(1) Streams shall be classified according to the following criteria:

(a) Type S streams are all streams inventoried as "shorelines of the state" under the City's shoreline master program. No Type S streams have been identified in the City as of September 1, 2005.

(b) Type F streams are those streams that are used by salmonids, have the potential to support salmonid uses, or that have been identified as being of special significance. Streams of special significance are those perennial reaches designated by the City based on historic fish presence and/or the probability of restoration of the following:

(i) George Davis Creek;

(ii) Ebright Creek;

(iii) Pine Lake Creek; and

(iv) Laughing Jacobs Creek, below Laughing Jacobs Lake.

(c) Type Np streams which are perennial during a year of normal rainfall and do not have the potential to be used by salmonids. Type Np streams include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple, nontechnical observations, then the point of perennial flow should be determined using the best professional judgment of a qualified professional.

(d) Type Ns streams which are seasonal or ephemeral during a year of normal rainfall and do not have the potential to be used by salmonids.

(2) For the purposes of this definition, "used by salmonids" and "potential to support salmonid uses" is presumed for:

(a) Streams where naturally reoccurring use by salmonid populations has been documented by a government agency;

(b) Streams that are fish passable by salmonid populations from Lake Sammamish, as determined by a qualified professional based on review of stream flow, gradient and barriers and criteria for fish passability established by the Washington Department of Fish and Wildlife; and

(c) Streams that are planned for restoration in a six-year capital improvement plan adopted by a government agency that will result in a fish passable connection to Lake Sammamish. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

21A.15.1265 Submerged land.

"Submerged land" means any land at or below the ordinary high water mark. (Ord. O2003-132 § 10)

21A.15.1275 Total phosphorus.

"Total phosphorus" means the phosphorus concentration as determined by a state-certified analytical laboratory using EPA 365.3 or SM 4500-P-B, E or an equivalent method.

Citizens for Sammamish mark-up

1 **21A.15.1285 Trails.**

2 "Trails" means manmade pathways designed and intended for use by pedestrians, bicyclists, equestrians,
3 and/or recreational users. Trails may be paved or unpaved, and may be intended and constructed for
4 transportation, recreation, and nature contact and enjoyment. Types of trails are described and defined in the
5 park and recreation plan, trails, bikeways and paths plan, or elsewhere in the city comprehensive plan. (Ord.
6 O2005-172 § 2; Ord. O2003-132 § 10)

7 **21A.15.1295Trophic state index.**

8 "Trophic state index" means a classification system which uses algal biomass as the basis for classification
9 which can be independently measured by chlorophyll a, Secchi depth, and total phosphorus concentration.

Commented [CdS175]: Item 5-18

10 **21A.15.1300Trophicstatus.**

11 "Trophic status" means a classification which defines lake quality by the degree of biological productivity.

Commented [CdS176]: Item 5-18

12 **21A.15.1395 Wetland edge.**

13 "Wetland edge" means the line delineating the outer edge of a wetland, consistent with the Washington State
14 Wetlands and Delineation Manual (1997, as amended). (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

Deleted: 21A

15 **21A.15.1405 Wetland functions.**

16 "Wetland functions" means natural processes performed by wetlands including functions that are important in
17 facilitating food chain production, providing habitat for nesting, rearing, and resting sites for aquatic, terrestrial,
18 and avian species, maintaining the availability and quality of water, acting as recharge and discharge areas for
19 groundwater aquifers and moderating surface and storm water flows, as well as performing other functions
20 including, but not limited to, those set forth in 33 CFR 320.4(b)(2), 1988. (Ord. O2003-132 § 10)

Deleted: .15.1390 Wet meadows, grazed.

"Wet meadows, grazed" means palustrine emergent wetlands typically having up to six inches of standing water during the wet season and dominated under normal conditions by meadow emergents such as reed canary grass, spike rushes, bulrushes, sedges and rushes. During the growing season, the soil is often saturated but not covered with water. These meadows have been frequently used for livestock activities. (Ord. O2003-132 § 10)

Deleted: 21A.15.1400 Wetland, forested

Deleted: ¶

"Wetland, forested" means a wetland that is characterized by woody vegetation at least 20 feet tall. (Ord. O2003-132 § 10)

21 **21A.15.1410 Wetland, isolated.**

22 "Wetland, isolated" means a wetland that is hydrologically isolated from other wetlands or streams, does not
23 have permanent open water, and is determined to be of low function. (Ord. O2005-193 § 2; Ord. O2003-132 §
24 10)

25 **21A.15.1415 Wetlands.**

26 "Wetlands" are those areas in the City of Sammamish designated in accordance with the federal 1987 Wetland
27 Delineation Manual (Environmental Laboratory, 1987) and the United States Army Corps of Engineers
28 (USACE) Interim Regional Supplement for Western Mountains, Valleys, and Coast Region (USACE, 2010).
29 Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration
30 sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically
31 adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar
32 areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including,
33 but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater
34 treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that
35 were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include
36 those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

Commented [EM179]: Item 3-1

Deleted: Washington State Wetlands Identification and Delineation Manual (1997, as amended)

1 Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington
2 (Department of Ecology, 2004, or as revised). This document contains the definitions, methods and a rating
3 form for determining the categorization of wetlands described below:

4 (1) Category 1. Category 1 wetlands include those that receive a score of greater than or equal to 70 based on
5 functions, or those that are rated Category 1 based on special characteristics as defined in the rating form.

6 (2) Category 2. Category 2 wetlands include those that receive a score of 51 through 69 based on functions, or
7 those that are rated Category 2 based on special characteristics as defined in the rating form.

8 (3) Category 3. Category 3 wetlands include those that receive a score of 30 through 50 based on functions.

9 (4) Category 4. Category 4 wetlands score less than 30 points based on functions. (Ord. O2005-193 § 2; Ord.
10 O2003-132 § 10)

11
12 **Chapter 21A.70**
13 **NONCONFORMANCE, TEMPORARY USES, AND RE-USE OF FACILITIES**

14 **21A.70.020 Nonconformance – Applicability.**

15 (1) All nonconformances ~~except nonconforming uses and improvements related to the provisions of SMC~~
16 21A.50, shall be subject to the provisions of this chapter.

Commented [EM180]: Item 2-14

17 (2) The provisions of this chapter do not supersede or relieve a property owner from compliance with:

18 (a) The requirements of the Uniform Building and Fire Codes; or

19 (b) The provisions of this code beyond the specific nonconformance addressed by this chapter. (Ord.
20 O99-29 § 1)

Elaboration of C4S Comments

Clarification of applicability of 21A.50.330

Section 21A.50.330 should only apply to new developments, and that should be made clear in the introductory paragraph. The proposed new definition of "development" (21A.50.XXX) includes "any project of a permanent or temporary nature exterior to a building". Many of the activities homeowners commonly perform to maintain or enhance their homes and yards, yet have no effect on a nearby watercourse or associated habitat, are encompassed by this definition. The restrictions imposed directly or indirectly by this section should not apply to such activities. But due to continued ambiguity as to what does and does not constitute "development" and require a "development proposal", these requirements could be easily construed as applicable to homeowners by plan review personnel, or used as leverage to pursue an agenda of environmental activism.

The provisions of new Section 21A.50.060 help but do not solve this problem. That section does not address what does and does not require a development proposal.

Take for example a property owner who wants to rework some landscaping beyond merely mowing, pruning, and applying ground cover (ref. 16.15.050 (8)). Perhaps he wants to change some plantings. And perhaps, although in a stream buffer, he is separated from the watercourse in question by two other houses. Are the provisions of this section intended to apply to such a case? C4S submits that they should not. But it could be construed that the city expects that homeowner to submit a development proposal for such activities, minor as they are (ref. comment on 21A.15.210). Therefore a literal interpretation would indicate that these provisions do apply to such a case.

If this is the intent, C4S strongly objects. That opens the door, via this section and 21A.50.340, to the city using activities that are minor and commonplace, but construed to require development proposals, as leverage to impose increased buffer widths. It also requires, via sub-item (10), a habitat management plan, critical areas study, and/or alteration plan, for anything that involves removal of any native vegetation or woody debris from the stream buffer no matter how far away from the stream. Both are unreasonable in the context of developed neighborhoods and should not be enabled by the ambiguity now present in the code.

This section should only apply to new development, and that should be made clear.

Text for Buffer Delineation

(n) Buffer Delineation. As an alternative to the Standard Buffer Widths defined in (1) above, a buffer may be located by analysis of the actual range of influence on the ["wetland" or "stream"] from proposed or existing developments or uses given features and conditions present in the vicinity of the [wetland or stream]. Such analysis will be performed by qualified, licensed professionals based on site inspection and the application of hydrological, geotechnical, and biological science. The analysis shall delineate a buffer boundary of varying width that constitutes the distance beyond which the proposed or existing developments or uses will have no appreciable effect on the [wetland or stream] and associated habitat.

Factors to be considered in such analysis shall include, but not be limited to, the following:

(a) Barriers. Existing natural or man-made structures that constitute barriers to influence on the [wetland or stream]. Buffers shall not extend across roads or other lawfully established structures or hardened surfaces, except for hardened surfaces which, due to grade, allow significant sheet flow into the [wetland or stream].

(b) Topography. A change in grade that results in drainage of ground water away from rather than toward the [wetland or stream].

(c) Quality. Environmental value of the [wetland or stream].

(d) Adjoining Habitat. Extent of viable habitat in the vicinity of the [wetland or stream]

These and any other factors deemed relevant shall be combined to delineate a buffer beyond which negligible further protection of the [wetland or stream] and associated habitat would be provided.

A report of the buffer delineation shall be submitted to the city for review and approval. The report shall map the location of the buffer boundary on the subject property to within an accuracy of plus or minus one foot and shall thoroughly describe the basis for that location. Once approved, the resulting delineation shall be recorded as a notice on title for the subject property as stipulated in 21A.50.180.

Fish and wildlife habitat conservation areas and corridors

These two types of restricted areas were added to the code without adequate consideration given to their impact on already developed neighborhoods. Given the current overly-broad definition of "development", there is nothing to prevent these from being applied retroactively to already densely developed neighborhoods where they do not function, but where their imposition restricts the rights of residents to use their property for no or insignificant environmental gain.

New definition 21A.15.467, Fish and wildlife habitat corridors, prescribes a 200 ft region on either side of a Type F or Np stream, or a wetland with a high habitat score, as a fish and wildlife habitat corridor.

Existing definition 21A.15.468, Fish and wildlife habitat conservation areas, includes fish and wildlife habitat corridors (item (4)). This implies that any fish and wildlife habitat corridor is by definition a fish and wildlife habitat conservation area, and thus exists within 200 ft of these two types of critical areas.

Section 21A.50.325, Fish and wildlife habitat conservation areas, "Development standards, places various restrictions on these areas, such as requiring "an approved habitat management plan, critical areas study, and/or alteration plan" for the removal of any native vegetation or woody debris, and gives "the department" the authority to require yet additional buffers outside these areas.

So with these provisions a 75 or 150 ft stream buffer is subsumed into a 200 ft habitat conservation area plus some undefined additional buffer width.

Section 21A.50.327, Fish and wildlife habitat corridors, requires that for sites that contain Type F or Np streams, or wetlands with a high habitat score, a fish and wildlife habitat corridor be set aside that is a minimum of 300 ft wide. The same is true for sites "where development already exists" unless "through an approved habitat management plan it can be shown that a lesser habitat corridor width supports and maintains the corridor's function and value". Similar restrictions (e.g., on clearing and grading, removal of woody debris, etc.) apply as for fish and wildlife conservation areas.

With the above definitions and code sections, as with stream and wetland buffers, the issue is the failure of the existing code to adequately distinguish development activities on raw land from reasonable and commonplace uses of land in established neighborhoods; it does not recognize that just because a watercourse or wetland may be present in an urban setting there is not necessarily viable habitat or a route for wildlife travel that comes anywhere close to the sizes presumed in these definitions and code sections. Both of these sections impose arbitrary restrictions (like a 400 ft band around a Type Np stream) that are even more onerous if applied to developed neighborhoods than are the standard stream and wetland buffers. The definition of "development" (21A.15.XXX) is broad; it includes "any project of a permanent or temporary nature exterior to a building". If the intent is that any "development" triggers the imposition of these habitat corridors, conservation areas, and further buffers, that it is far overreaching in the case of developed neighborhoods. Like arbitrary and excessive stream and wetland buffers, it can restrict human uses for no true environmental gain. And the action of one property owner, if it triggers the declaration of a fish and wildlife habitat conservation area and corridor, can affect numerous other property owners. That is an invitation for public backlash.

If, on the other hand, the intent is that these requirements just apply to new development on raw land, then the code needs to make that clear; it needs to spell out the distinctions between development and maintenance in this regard, as it is attempting to do (unsuccessfully at this point) in the rewritten section 21A.50.060 for critical area buffers and building setbacks.

1
2 A solution to this problem is imperative, as it is potentially even more unfair to established residents than
3 arbitrary, one-size-fits-all stream and wetland buffers. We recommend that additional material be added
4 to 21A.50.060 that makes it clear that the kinds of developments, activities, and uses that are
5 commonplace in developed urban neighborhoods do *not* cause the declaration of a new fish and wildlife
6 conservation area and corridor, or the expansion of an existing one. Alternately, text can be added to
7 21A.50.325 and 21A.50.327 that accomplishes the same purpose.
8

PC Recommended Draft

(1) The following developments, activities and uses are exempt from the review process of this chapter, except for the notice on title provisions, SMC 21A.50.180 and 21A.50.190, and the frequently flooded areas provisions, SMC 21A.50.230, and provided such exempt activities are otherwise consistent with the purpose of this chapter and other applicable regulations. The director may apply conditions to an underlying permit or approval to ensure that the activities are consistent with the provisions of this chapter.

(a) Structural modification of, addition to or replacement of existing legally created structures, except single detached residences in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams, ponds or landslide hazard areas if the modification, addition, replacement or related activity does not increase the existing footprint of the structure lying within the above-described building setback area, critical area or buffer.

(b) Structural modification of, addition to or replacement of legally created single detached residences and improvements constructed on existing associated legally created impervious surfaces in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams, lakes, ponds or landslide hazard areas if the modification, addition, replacement or related activity does not increase the existing total footprint of the residence and associated impervious surface lying within the above-described buffer or building setback area by more than 1,000 square feet over that existing before November 27, 1990, and no portion of the modification, addition or replacement is located closer to the critical area or, if the existing residence is in the critical area, extends farther into the critical area.

(c) Maintenance or repair of structures that do not meet the development standards of this chapter for landslide or seismic hazard areas if the maintenance or repair does not increase the footprint of the structure and there is no increased risk to life or property as a result of the proposed maintenance or repair.

(d) Select Vegetation Removal Activities. The removal of the following invasive vegetation is allowed with hand labor and/or light equipment; provided, that the appropriate erosion-control measures are used and the area is replanted with native vegetation according to a restoration or enhancement plan that has been approved by the City of Sammamish:

- (i) Noxious weeds as identified by Washington State or King County noxious weed lists;
- (ii) Himalayan blackberry (*Rubus discolor*, *R. procerus*);
- (iii) Evergreen blackberry (*R. laciniatus*);
- (iv) Ivy (*Hedera* spp.); and

(v) Holly (*Ilex* spp.), laurel, Japanese knotweed (*Polygonum cuspidatum*), or any other species on the King County noxious weed list.

Removal of any native vegetation or woody debris from a critical area is prohibited unless the action is part of an approved alteration.

(e) Conservation, Preservation, Restoration and/or Enhancement.

(i) Conservation and preservation of soil, water, vegetation, fish and other wildlife that does not entail alteration of the location, size, dimensions or functions of an existing critical area or buffer; and

(ii) Restoration and enhancement of critical areas or buffers; provided, that actions do not alter the location, dimensions or size of the critical area or buffer; that actions improve and do not reduce the existing quality or functions of the critical areas or buffers; and that actions are implemented according to a restoration or enhancement plan that has been approved by the City of Sammamish.

(2) Existing and ongoing agriculture and grazing of livestock is exempt from the provisions of this chapter and any administrative rules promulgated thereunder, except for the livestock restriction provisions, SMC 21A.50.290 and 21A.50.330, and any animal density limitations established by law, if the agriculture or grazing activity was in existence before November 27, 1990.

Page 46: [2] Deleted

Evan Maxim

7/16/2012 1:31:00 PM

(a) Acreage Replacement Ratios. The following ratios shall apply to wetland creation or restoration that is in-kind, on-site, the same category, and has a high probability of success. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

Category I	6-to-1
Category II	3-to-1
Category III	2-to-1
Category IV	1.5-to-1

Page 64: [3] Deleted

Carl de Simas

10/9/2012 1:54:00 PM

(3) Definitions. In addition to the definitions listed below, all definitions included in the King County Surface Water Design Manual are hereby adopted by reference.

(a) "AKART" means all known, available, and reasonable methods of prevention, control, and treatment.

(b) "Eutrophic" means a trophic status characterized by moderately high algal productivity, more serious oxygen depletion in the bottom waters, some recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth of less than two meters, and a winter total phosphorus concentration greater than 20 micrograms/liter.

(c) "Hypereutrophic" means a trophic status characterized by high algal productivity, intense algal blooms, fish kills due to oxygen depletion in the bottom waters, frequent recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth generally less than two meters, and a winter total phosphorus concentration greater than 30 micrograms/liter.

(d) "Lake management plan" means the plan (and supporting documents as appropriate) describing the lake management recommendations and requirements.

(e) "Mesotrophic" means a trophic status characterized by moderate algal productivity, oxygen depletion in the bottom waters, usually no recreational use impairment, summer chlorophyll a concentration averaging four to 10 micrograms/liter, a summer Secchi depth of two to five meters, and a winter total phosphorus concentration ranging from 10 to 20 micrograms/liter.

(f) "Oligotrophic" means a trophic status characterized by low algal productivity, algal blooms are rare, water clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration average less than four micrograms/liter, a summer Secchi depth greater than five meters, and a winter total phosphorus concentration ranging from zero to 10 micrograms/liter.

(g) "Phosphorus" means elemental phosphorus and for the purposes of this section shall be measured as total phosphorus.

(h) "Phosphorus concentration" means the mass of phosphorus per liquid volume.

(i) "Phosphorus loading" means the total mass of phosphorus per time basis.

(j) "Total phosphorus" means the phosphorus concentration as determined by a state-certified analytical laboratory using EPA 365.3 or SM 4500-P-B, E or an equivalent method.

(k) "Trophic state index" means a classification system which uses algal biomass as the basis for classification which can be independently measured by chlorophyll a, Secchi depth, and total phosphorus concentration.

(l) "Trophic status" means a classification which defines lake quality by the degree of biological productivity.

the following storm water treatment design criteria:

(i) A wetpond or combined detention/wetpond with a permanent pool volume equal to four and one-half times the volume of runoff from the mean annual storm ($VB/VR=4.5$).

(A) Mandatory roof downspout infiltration, unless shown to be infeasible, and maximization of forest or native vegetation retention.

(B) Pond volume can be reduced by maximizing forest retention according to the following schedule:

Forest (%)	VB/VR ratio
25	4.25
30	4.00
40	3.50
50	3.25
60	3.00

(C) Forest retention areas shall be in tracts dedicated to the City. Buffers without trails can be counted in the percent forest figure.

(D) The VB/VR ratio is the volume of the wetpond basin divided by the volume of the runoff from the mean annual storm. The mean annual storm is equal to 0.46 inches at SeaTac. Runoff can be estimated using a runoff coefficient of 0.9 for impervious area and 0.25 for all other pervious area. Forested areas in tracts dedicated to the City need not be included in the calculation of pond sizing (i.e., zero new runoff volume assumed). If this method is used in other areas, and SeaTac precipitation statistics underestimate the rainfall as judged by the isopluvial distribution of the two-year 24-hour precipitation, the mean annual rainfall should be adjusted upward.

(ii) Although current King County SWM designs are not complete for sand filtration, incorporation of sand filters into storm water treatment facility designs (i.e., treatment trains) can be pursued through the variance process to achieve additional total phosphorus removal. The proponent must demonstrate that equivalent or improved total phosphorus treatment can

be expected with an alternative treatment system which incorporates sand filtration other than by methods described in subsection (8)(b)(i) of this section.

(iii) Where soils are suitable, on-site infiltration of storm water runoff can be pursued through the variance process as an AKART alternative. Soils are considered suitable for infiltration if at least two feet of soil exist where one of the following soil conditions are met:

(A) The cation exchange capacity of the soil equals or is greater than five milliequivalents;

(B) The organic content of the soil is equal to or greater than five percent;

(C) The grain size distribution of site soils is equivalent to not more than 25 percent gravel by weight (75 percent passing the No. 4 sieve) and of that passing the No. 4 sieve, either (1) 50 percent minimum passes the No. 40 sieve and two percent minimum passes the No. 100 sieve, or (2) 25 percent minimum passes the No. 40 sieve and five percent minimum passes the No. 200 sieve; and

(D) The infiltration rate is 2.4 inches/hour or less.

Additionally, the proponent must demonstrate that equivalent or better phosphorus treatment can be expected with on-site infiltration than by methods described in subsection (8) of this section.

(iv) As the King County Surface Water Design Manual is updated and additional treatment options and designs for total phosphorus removal become available, alternative treatment systems may be utilized if the AKART standard for phosphorus removal can be demonstrated.